# SERVICE MANUAL AA-2H CHASSIS

| MODEL | COMMANDER | DEST. | CHASSIS NO. |
|---|---|---|---|
| **KV-32FV1** | RM-Y167 | US | SCC-S18B-A |
| **KV-32FV1** | RM-Y167 | CND | SCC-S19B-A |
| **KV-34FVL1** | RM-Y167 | E | SCC-S20B-A |
| **KV-36FV1** | RM-Y167 | US | SCC-S18C-A |
| **KV-36FV1** | RM-Y167 | CND | SCC-S19C-A |

KV-36FV1

RM-Y167

MICROFILM

WEIXIUZHIJIA 维修之家

TRINITRON® COLOR TV

SONY®

# SPECIFICATIONS

| | | KV-32FV1 KV-34FVL1 | KV-36FV1 |
|---|---|---|---|
| Power requirements | | 120V,60Hz | |
| Number of inputs/outputs | | | |
| | Video [1] | 3 | |
| | S Video [2] | 2 | |
| | Audio [3] | 4 | |
| | Audio Out [4] | 1 | |
| | Monitor Out | 1 | |
| | TV out [1] [3] | 1 | |
| | S-link | 3 | |
| | Y, $P_B$, $P_R$ [5] | 1 | |
| | Speaker output (W) | 15Wx2 | |
| Power Consumption (W) | | | |
| | In use (max.) | 240W | |
| | In standby | 2W | |
| Dimensions (W/H/D) | (mm) | 889.4 X 685.6 x 600.7 mm | 1010 X 761.2 X 630.9 mm |
| | (in.) | $35^{7/16}$ x 27 x $23^{21/32}$ in | $39^{13/16}$ x 30 x $24^{15/16}$ in |
| Mass | (kg.) | 79 kg | 107 kg |
| | (lbs.) | 175 lbs | 236 lbs |

[1] 1 Vp-p, 75 ohms unbalanced, sync negative
[2] Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
[3] 500 mVrms (100% modulation); Impedance: 47 kilohms
[4] More than 408 mVrms at the maximum volume setting (variable) More than 408mVrms (fix); Impedance (Output): 2 kilohms
[5] Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms; PR: Vp-p, 75 ohms

Television system: American TV standard, NTSC

Channel coverage:
VHF : 2-13
UHF : 14-69
CATV : 1-125

Antenna: 75-ohm external antenna terminal for VHF / UHF

Picture tube: FD Trinitron® tube

Visible Screen Size:
32-inch picture measured diagonally (KV-32FV1/34FVL1)
36-inch picture measured diagonally (KV-36FV1)

Actual Screen Size:
34-inch picture measured diagonally (KV-32FV1/34FVL1)
38-inch picture measured diagonally (KV-36FV1)

Supplied Accessories: Remote control RM-Y167,
Battery size AA (R6) 2

Optional accessories: Connecting cables
RK-74A, RK-G69HG,
VMC-10HG, VMC-720M,
VMC-810S/820S, YC-15V/30V,
TV Stand SU-32FD1, SU-36FD1
U/V mixer EAC-66

(●)® SRS (SOUND RETRIEVAL SYSTEM)

The (●) SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

The word "SRS" and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

*** Design and specifications are subject to change without notice.*

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**CAUTION!**

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

**ATTENTION**

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

**WARNING!!**

**AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.**
**THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.**

**ATTENTION!!**

**AFIN D'EVITER TOUT RESQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.**

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.**

**ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!**

**LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNEIMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONTIONNEMENT SUSPECTE.**

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, “metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

## HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-l00 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

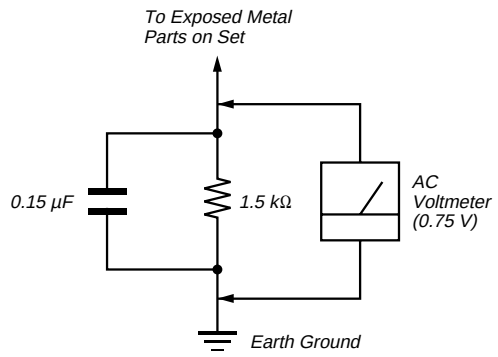



Fig. A. Using an AC voltmeter to check AC leakage.

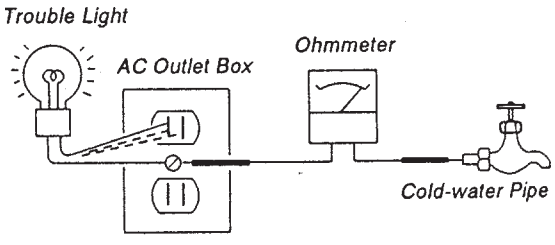


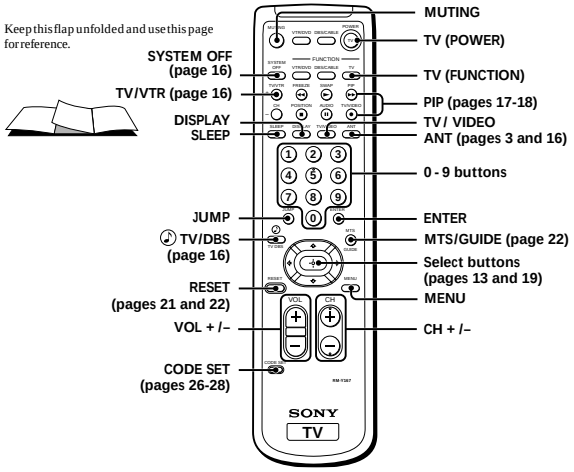

Fig B. Checking for earth ground.

The instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual.

# SECTION 1
# GENERAL

## Remote Control

Keep this flap unfolded and use this page for reference.




### Getting to know the buttons on the remote control

Names of the buttons on the remote control are presented in different colors to represent the available functions.

**Button color**

Clear ..... Press to select the component you want to control; e.g. VTR (VCR) / DVD, DBS (Direct Broadcast Satellite) / CABLE, or TV

Green ..... Buttons relevant to power operations, like turning the TV, DBS (Direct Broadcast Satellite) / CABLE, or VTR (VCR) / DVD on or off

**Label color**

White ..... TV / VTR (VCR) / DVD / DBS (Direct Broadcast Satellite) / CABLE operation buttons

Yellow ..... PIP operation buttons

Blue ..... DBS (Direct Broadcast Satellite) operation buttons

Green ..... SYSTEM OFF operation button

**For a detailed explanation of most buttons, see "Watching the TV" on page 15.**



## VCR Connections

### Connecting an antenna/cable TV system with a VCR

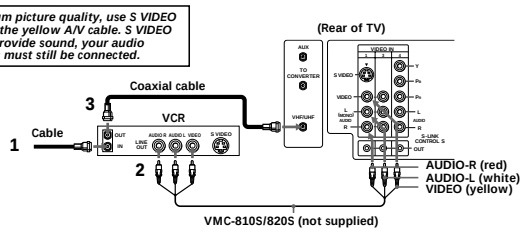
1 Attach the coaxial connector from your cable or antenna to IN on your VCR.

2 Using A / V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV*.

3 Using a coaxial connector, connect OUT on your VCR to VHF / UHF on your TV.

* If you are connecting a monaural VCR, connect only the single white audio output to the left input on your TV.

*For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.*

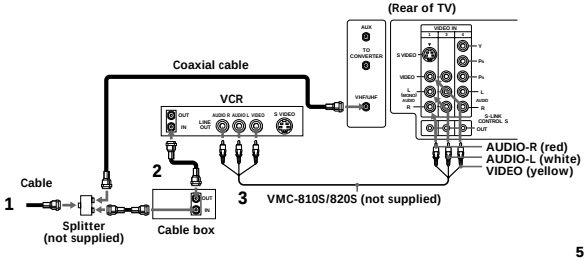



### Connecting a VCR and TV with a cable box

1 Connect the single (input) jack of the Splitter to your incoming cable connection, and connect the other two (output) jacks (using coaxial cable) to IN on your cable box and VHF / UHF on your TV.

2 Using a coaxial connector, connect OUT on your cable box to IN on your VCR.

3 Using A / V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.






## Connecting and Installing the TV (continued)

### Cable Box Connections

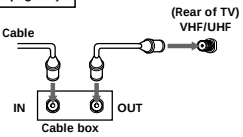
Some pay cable TV systems use scrambled or encoded signals that require a cable box to view all channels.

#### Cable box

1 Connect the coaxial connector from your cable to the IN on your cable box.

2 Using a coaxial cable, connect OUT on your cable box to VHF / UHF on your TV.

*If you will be controlling all channel selection through your cable box, you should consider using the CHANNEL FIX feature. (see page 24)*




#### Cable box and cable

For this set up, you can switch between scrambled channels (through your cable box), and normal (CATV) channels by pressing ANT on your remote control.

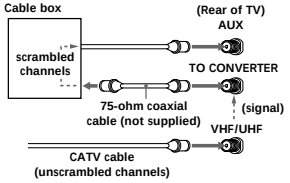
**Notes**

- Your Sony remote control can be programmed to operate your cable box. (see page 26)
- When using PIP, you cannot view the AUX input in the window picture.

Tip

Pressing ANT switches between these inputs.

*If you are connecting a cable box through the AUX input and would like to switch between the AUX and normal (CATV) input you should consider using the CHANNEL FIX feature. (see page 24)*






## Connecting and Installing the TV (continued)

### Connecting two VCRs

MONITOR OUT gives you the ability to use a second VCR to record a program being played by the primary VCR or to perform tape editing and dubbing.

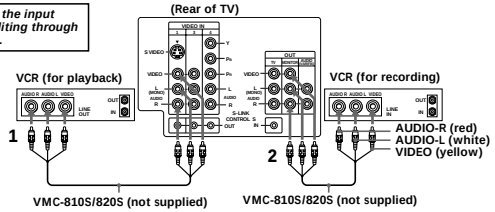
1 Connect the VCR intended for playback using the connection instructions on page 4 of this manual.

2 Using A / V connectors, connect AUDIO and VIDEO IN on your VCR intended for recording to MONITOR AUDIO and VIDEO OUT on your TV.

**Notes**

- If you will be connecting your A / V receiver to external speakers, you do not need to connect AUDIO OUT on your A / V receiver to AUDIO IN on your TV.
- You cannot record signals from equipment connected to the Y, PB, PR input.

*Do not change the input signal while editing through MONITOR OUT.*



## DBS Connections

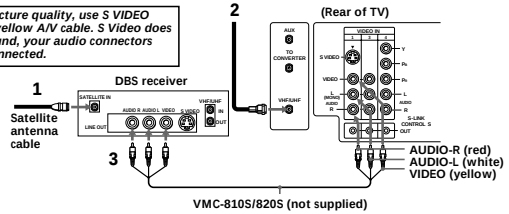
### Connecting a DBS (Direct Broadcast Satellite) receiver

1 Connect the cable from your satellite antenna to your DBS receiver.
2 Attach the coaxial connector from your cable or antenna to VHF/UHF on your TV.
3 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your TV.

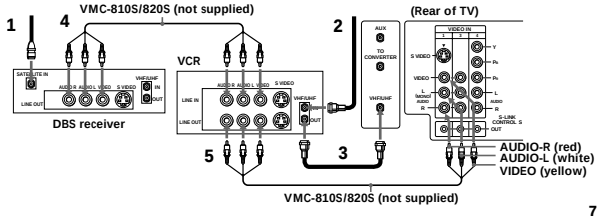
### Connecting a DBS (Direct Broadcast Satellite) receiver and a VCR

1 Connect the cable from your satellite antenna to your DBS receiver.
2 Attach the coaxial connector from your cable or antenna to VHF/UHF IN on your VCR.
3 Using a coaxial connector, connect VHF/UHF OUT on your VCR to VHF/UHF on your TV.
4 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your VCR.
5 Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.

*For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S Video does not provide sound, your audio connectors must still be connected.*




*Pressing TV/VIDEO on the remote control will allow you to view from the DBS or VCR.*








## Additional Connections

### Connecting an audio system

For an enhanced sound, connect your audio system to your TV.

1 Using AUDIO connectors, connect AUDIO OUT on your TV to one of the unused Line inputs (e.g. Tape-2, AUX1, etc.) on your stereo.
2 Set your stereo to the chosen Line input and use the AUDIO menu to set your audio output. (see "SPEAKER" and "AUDIO OUT" on page 22)

### Connecting an A/V receiver

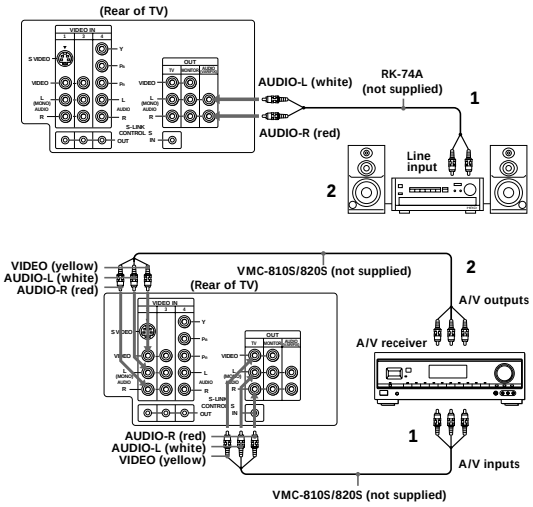
1 Using A/V cables, connect TV OUT on your TV to TV IN on your A/V receiver.
2 Using A/V cables, connect A/V OUT on your receiver to VIDEO IN on your TV.

**Note**

• If you will be connecting your A/V receiver to external speakers, you do not need to connect AUDIO OUT on your A/V receiver to AUDIO IN on your TV.

Tip

You may want to use CHANNEL FIX to fix your TV's input to the A/V receiver (VIDEO 1). (see "CHANNEL SET UP" on page 24)








## DVD Player Connections

### Connecting a DVD Player

Using A/V connectors, connect VIDEO IN on your TV to LINE OUT on your DVD Player.

### Connecting a DVD Player with component video output connectors

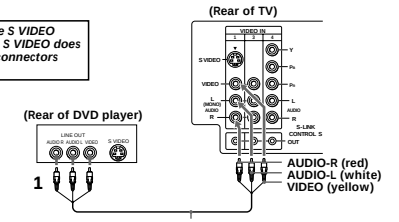
This connection option offers the highest quality DVD picture.

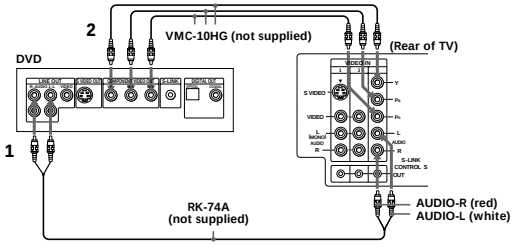
1 Using AUDIO connectors, connect AUDIO R and L of the LINE OUT on your DVD Player to AUDIO R and L on the VIDEO IN 4 panel at the rear of your TV.
2 Using three VIDEO connectors, connect Y, $P_B$, and $P_R$ on the COMPONENT VIDEO OUT on your DVD Player to Y, $P_B$, and $P_R$ on the VIDEO IN 4 panel at the rear of your TV.

**Note**

• Some DVD Player terminals may be labeled Y, $C_B$, and $C_R$, or Y, B-Y, and R-Y. If yours are labeled so, connect them by matching the colors.

*For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.*








### Connecting a camcorder

This connection is convenient for viewing a picture directly from your camcorder.

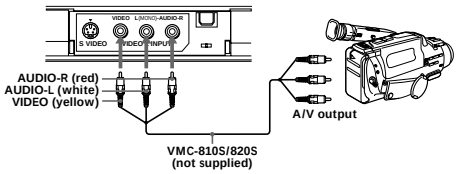
Using A/V connectors, connect AUDIO and VIDEO OUT on your camcorder to AUDIO and VIDEO IN on your TV.

Connection can also be made directly to your A/V input located on the rear of your TV.

**Note**

• If you are connecting a monaural camcorder, connect only the single white audio output to the left input on your TV.

*If you have an S VIDEO equipped camcorder, you can use an S Video cable for optimum picture quality.*



## Using Special Sony Features

### Using the CONTROL S feature

CONTROL S allows you to control your TV and other Sony equipment with one remote control.

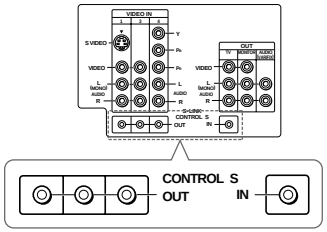
To control your other Sony equipment with your TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the TV with the CONTROL S cable.

To control other Sony equipment with your TV's remote control, see the next page.

**Note**

- You can also program your remote control to control other equipment. (see "Operating Video Equipment" on page 26)

(Rear of TV)






## Watching the TV

All of the TV features can be accessed via the remote control. The following chart will explain the function of the buttons found on your remote control.

**REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART**

| | |
|---|---|
| VTR/DVD DBS/CABLE POWER TV | Press when you want to turn equipment on and off. |
| FUNCTION VTR/DVD DBS/CABLE TV | Press when you want to control connected components with your remote control. (see pages 26-28 for instructions on programming your remote control) |
| 0 - 9 and ENTER | Use for direct channel selection. Press 0-9 to select a channel, the channel will change after 2 seconds, or you can press ENTER for immediate selection. |
| CH + - | Press to scan through the channels.<br>*Keeping the CH + or – pressed allows you to rapidly scan to the desired channel.* |
| JUMP | Press to alternate or *jump* back and forth between two channels. You can jump between the last two channels selected with the 0-9 keys. |
| MUTING | Press to mute the sound (MUTING will appear on the screen). Press again or press VOL + to restore sound. |
| SLEEP | Press repeatedly until the TV displays the approximate time in minutes (30, 60, or 90) that you want the TV to remain on before shutting off automatically.<br>Cancel by pressing until SLEEP OFF appears. |



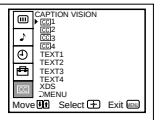


## Using Your New TV (continued)

| | |
|---|---|
| DISPLAY | Press repeatedly to cycle through available displays:<br>**Status**<br>Channel number, current time, channel caption (if set) are displayed.<br>**CAPTION VISION/XDS**<br>Closed Captioning or XDS will be displayed if the broadcaster offers this service. (see right)<br>To cancel the display, press DISPLAY until DISPLAY OFF appears. |
| TV/VIDEO | Press repeatedly to cycle through available video inputs:<br>**TV, VIDEO 1, VIDEO 2**, **VIDEO 3** and **VIDEO 4** |
| ANT<br>*(AUX input)* | Press to change the VHF/UHF input to the AUX input.<br>(For detailed connection information, see "Cable and antenna" or "Cable box and cable" on pages 3-4.)<br>Press to change between VIDEO and TV mode. |
| TV/VTR + | Press when you are finished using a VCR and you want to switch to the TV input. Your VCR power will remain on. |
| MTS<br>GUIDE | Press this button to cycle through the Multi-channel TV Sound (MTS) options:<br>**STEREO, SAP, MONO** (see page 22)<br>GUIDE is a feature of DBS, refer to your DBS operation instructions. |
| SYSTEM OFF | The SYSTEM OFF button allows you to power off all Sony equipment at once. |
| TV DBS | Press to turn ON or OFF one of the following audio effects:<br>**SIMULATED:** Adds a surround-like effect to mono programs.<br>**SRS:** Produces a dynamic three dimensional sound for stereo signals.<br>**AUTO SRS:** Automatically detects whether a stereo or mono signal is being received and switches the TV effect between SRS and SIMULATED.<br>**OFF:** Normal stereo or mono reception.<br>TV/DBS is a feature of DBS, refer to your DBS operating instructions. |



**CAPTION VISION**
*(Closed Caption)*




CAPTION VISION can be used for programs that are broadcast with closed caption.
To access CAPTION VISION:

1. Press MENU.
2. Press ↕ to scroll to CC, then press +.
3. Choose a CAPTION VISION option.
4. Access CAPTION VISION through your DISPLAY button. (see left)

**CC1, 2, 3 or 4**
Shows you a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs)

**TEXT1, 2, 3 or 4**
Shows you network/station information presented using either half or the whole screen.

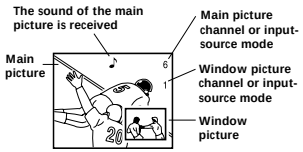
**XDS (Extended Data Service)**
Shows a network name, program name, program length, and time of the show if the broadcaster offers this service.

**Note**

- Poor reception of TV programs can cause errors in CAPTION VISION and XDS. Captions may appear with a white box or other errors instead of intended text.

## Watching two programs at one time - PIP

These models are equipped with dual tuners. This means that PIP is "ready to use".




**Notes**

- You must press TV (FUNCTION) before you can control PIP with the yellow labeled buttons.
- The AUX input cannot be viewed in the window picture.

***REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART***

| | |
|---|---|
| PIP | Press once to display the window picture (1/9 size).<br>Press again to reduce the size of the window picture (1/16 size).<br>Press a third time to turn off the window picture. |
| TV/VIDEO | Press repeatedly to cycle through available video inputs:<br>**TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4** |
| AUDIO | Press to alternate sound between the main picture and the window picture.<br>A ♪ will appear to indicate which picture is receiving sound. |
| TV/VTR + CH - | Press to change the channel in the window picture. |
| POSITION | Press to move the location of the window picture (counterclockwise) around the main picture. |

## Using Your New TV (continued)

| | |
|---|---|
| FREEZE | Press to freeze the window picture. This function is great for copying down phone numbers, addresses, recipes, etc.<br>*Press FREEZE again to restore the picture.* |
| SWAP | Press to switch the audio and video of the main picture and the window picture. Each time you press SWAP, the picture and sound of the two will be *swapped.* |



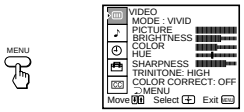
## Using Your Menus

### Learning menu selection

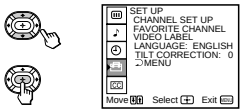
Use the MENU button to access a menu and use the arrow buttons (▲ or ▼) to alter settings. Use the following example, in which we activate the CABLE, to learn how to modify settings.

**1** Press the MENU button.

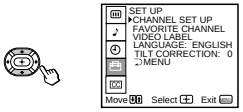
The main menu appears.




**2** Press ▲ or ▼ to highlight the desired menu (in this case SET UP) and press ⊕ to select it.

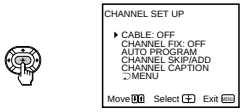



**3** Press ▲ or ▼ to move to the desired option.

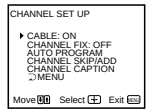



**4** Press ⊕.

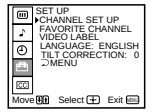
Options for your selection will be highlighted.




**5** Press ▲ or ▼ to make your selection and press ⊕.




When you are finished making changes to the selected menu, choose ↩MENU to return to the main menu.



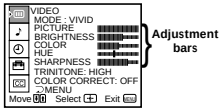

**Notes**

- Pressing MENU on the remote control will allow you to exit from the menus at any time.
- If menu items are "grayed out", press the ANT button on your remote control until a channel number appears.



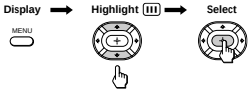
## Using Your New TV (continued)

### Using the VIDEO menu




For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

#### To select the VIDEO menu:




#### To restore the factory VIDEO settings

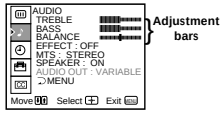
Press RESET while the VIDEO menu is displayed.

| | |
|---|---|
| **MODE**<br>*Customized picture viewing* | **VIVID:** Select for enhanced picture contrast and sharpness.<br>**SPORTS:** Select for a bright picture.<br>**MOVIE:** Select for a finely detailed picture.<br>**STANDARD:** Select to receive a standard picture.<br>You can alter VIDEO menu settings (e.g. PICTURE, HUE) for each MODE. Select each mode individually and then press RESET to restore factory settings. |
| **PICTURE**<br>*Picture contrast* | Adjust left to decrease picture contrast and soften the color.<br>Adjust right to increase picture contrast and create more vivid color. |
| **BRIGHTNESS**<br>*Picture adjustment* | Adjust left to darken the picture.<br>Adjust right to brighten the picture. |
| **COLOR**<br>*Color saturation* | Adjust left to decrease color intensity or saturation.<br>Adjust right to increase color intensity or saturation. |
| **HUE**<br>*Color tones* | Adjust left to increase the red tones.<br>Adjust right to decrease the red tones. |
| **SHARPNESS**<br>*Picture detail* | Adjust left to soften the picture detail.<br>Adjust right to sharpen the picture detail. |
| **TRINITONE**<br>*White intensity adjustment* | **HIGH:** Select to give the white colors a blue tint.<br>**MEDIUM:** Select to give the white colors a neutral tint.<br>**NTSC STD:** Select to give the white colors a red tint. |
| **COLOR CORRECT**<br>*Color ratio adjustment* | Select **ON** to emphasize reds and blues.<br>Select **OFF** to emphasize greens. |



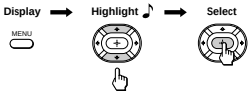
## Using Your Menus (continued)

### Using the AUDIO ♪ menu




For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

#### To select the AUDIO ♪ menu:




#### To restore the factory AUDIO settings

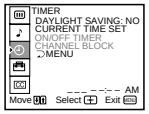
Press RESET while the AUDIO menu is displayed.

Tips

- Press ♪ to cycle through your audio EFFECT options.
- Press MTS on your remote control to cycle through the MTS options.

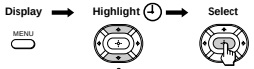
| | |
|---|---|
| **TREBLE** | Adjust left or right to decrease or increase higher pitched sound. |
| **BASS** | Adjust left or right to decrease or increase low pitched sounds. |
| **BALANCE** | Adjust left or right to emphasize left and right speaker volume. |
| **EFFECT**<br>*Enhanced audio options* | Press ▲ or ▼ to cycle through the following audio effects:<br>**SIMULATED**: Adds a surround-like effect to mono programs.<br>**SRS**: Produces a dynamic three dimensional sound for stereo signals.<br>**AUTO SRS**: Automatically detects whether a stereo or mono signal is being received and switches the TV effect between SRS and SIMULATED.<br>**OFF**: Normal stereo or mono reception. |
| **MTS**<br>*Enjoy stereo, bilingual and mono programs* | **MTS**: Press ▲ or ▼ to select one of the following options:<br>**MONO**: Select to reduce noise during stereo broadcasts for areas of weak reception.<br>**SAP**: Select to listen to bilingual broadcast. (Non-SAP programs will be muted when this feature is selected)<br>**STEREO**: Select when viewing a broadcast in stereo. |
| **SPEAKER**<br>*Custom selection of audio output source* | **ON:** Select to listen to the sound from the TV speakers with or without a separate stereo system.<br>**OFF:** Select to turn off the TV speakers and listen to the TV's sound only through external audio system speakers. |
| **AUDIO OUT**<br>*Use to control the TV's volume through a stereo* | AUDIO OUT can only be set when SPEAKER is set to OFF.<br>**VARIABLE:** Sound output varies according to the TV settings.<br>*Useful when you want to use your TV's remote control to adjust the output of a separate audio system.*<br>**FIXED:** Sound output is held at a fixed level through your stereo.<br>*Use your A/V receiver's remote control to adjust the volume.* |

## Using the TIMER menu




For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

### To select the TIMER menu:




### To cancel the ON/OFF TIMER function

Press RESET while the ON / OFF TIMER menu is displayed.

Tip

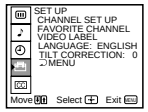
Set DAYLIGHT SAVING time before setting the clock.

| | |
|---|---|
| **DAYLIGHT SAVING**<br>*Automatically adjusts the time* | **Spring:** Select YES to compensate for Daylight Saving Time.<br>*The current time moves one hour ahead.*<br>**Fall:** Select NO at the end of Daylight Saving Time.<br>*The current time moves back one hour.* |
| **CURRENT TIME SET**<br>*Necessary for the ON/OFF TIMER* | With the CURRENT TIME SET menu open:<br>**1** Press ⊕.<br>**2** Press ↑ or ↓ until the current day is displayed. Press ⊕ to select.<br>**3** Press ↑ or ↓ until the current hour and AM/PM is displayed. Press ⊕ to select<br>**4** Press ↑ or ↓ until the current minute is displayed, press ⊕.<br>The clock is set. Press MENU to exit.<br>*Any loss of power will cause these settings to be erased.* |
| **ON/OFF TIMER**<br>*Wake up or scheduled viewing* | With the ON/OFF TIMER menu open:<br>**1** Choose the ON/OFF TIMER you would like to set and press ⊕.<br>**2** Press ↑ or ↓ until the desired day or range of days is displayed. Press ⊕ to select<br>**3** Indicate the time that you want the TV to turn on (hour, then minutes) by pressing ↑ or ↓ and then ⊕.<br>**4** Set the time duration (maximum of 6 hours) by pressing ↑ or ↓ and then ⊕.<br>**5** Press ↑ or ↓ until you reach the desired channel. Press ⊕ to select.<br>The ON/OFF TIMER is now set. Press MENU to exit.<br>*When you perform AUTO PROGRAM, all ON/OFF TIMER settings will be erased.* |
| **CHANNEL BLOCK**<br>*Prevent access to certain channels* | You will be able to block two channels for a period of up to 12 hours.<br>**FOLLOW STEPS 1-5 OF ON/OFF TIMER ABOVE**<br>To erase your CHANNEL BLOCK settings, press RESET while in the CHANNEL BLOCK window. Performing AUTO PROGRAM will erase your CHANNEL BLOCK settings. |



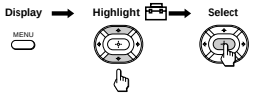


## Using the SET UP menu




For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

### To select the SET UP menu:




### Notes

- The FAVORITE CHANNEL feature is not available for the AUX input.
- Your remote control can be programmed to operate your cable box. (see page 28)
- After setting CABLE, you will need to run AUTO PROGRAM.
- ON / OFF TIMER and CHANNEL BLOCK settings will be erased when CHANNEL FIX is set.



| | |
|---|---|
| **CHANNEL SET UP**<br>*Basic set up options for viewing* | With the CHANNEL SET UP menu open:<br>Press ↑ or ↓ to access a feature, then press ⊕.<br>**CABLE:** Select ON if your TV is connected to a cable system.<br>**CHANNEL FIX:** Press ↑ or ↓ to set the TV's input to one of the following options:<br>**2-6:** When a cable box is connected to the VHF/UHF input. Press DBS/CABLE (FUNCTION) and then CH +/– to change channels through your cable box.<br>**AUX 2-6:** When a cable box is connected to AUX and a cable or antenna is connected to VHF/UHF. You can alternate between the two inputs by pressing ANT on the remote control.<br>**VIDEO 1:** When you have connected video equipment (e.g. A/V receiver) and you want the TV input fixed to it. You will be able to alternate between video sources using the A/V receiver.<br>**OFF:** When you want to turn CHANNEL FIX off.<br>**AUTO PROGRAM:** Instructs the TV to program all receivable channels.<br>**CHANNEL SKIP/ADD:** With the CHANNEL SKIP/ADD window open:<br>**1** Select the desired channel.<br>**2** Press ⊕ to SKIP or ADD (only one option will be available).<br>**CHANNEL CAPTION:** Label up to 12 channels with their call letters (up to four letters).<br>With the CHANNEL CAPTION menu open:<br>**1** Press ⊕ and then ↑ or ↓ to access the desired channel, and press ⊕ again.<br>**2** Press ↑ or ↓ to display the first letter or number of the caption and press ⊕ to select it.<br>**3** Press ⊕ to activate. To erase a caption, press RESET. |



| | |
|---|---|
| **FAVORITE CHANNEL**<br>*Quick access to favorite channels* | **Setting FAVORITE CHANNEL:**<br>**1** Press ⊕ and then ↑ or ↓ to select AUTO or MANUAL. (Selecting AUTO will display the last five channels chosen with the remote control's 0-9 buttons.)<br>**2** Press ↑ or ↓ to move the cursor to 1, 2, 3, 4 or 5 and press ⊕.<br>**3** Press ↑ or ↓ to access the desired channel and press ⊕.<br>To preview your favorite channels in the window picture, set PREVIEW to ON.<br><br>**Using FAVORITE CHANNEL:**<br>**1** Press ⊕ when in normal viewing mode. Your FAVORITE CHANNEL options will appear.<br>**2** Press ↑ or ↓ to access the channel you want to watch, and press ⊕.<br>If PREVIEW is ON, a window picture displays your favorite channels as you cycle through the options. |
| **VIDEO LABEL**<br>*Label connected equipment for easy recognition* | **With the VIDEO LABEL window open:**<br>**1** Press ↑ or ↓ to access the input mode you want to label and press ⊕.<br>**2** Press ↑ or ↓ to choose the label and press ⊕.<br><br>**VIDEO LABEL Options:**<br>VIDEO 1/2/3: VHS, 8mm, BETA, LD, GAME, DBS, DVD, WEB, RECEIVER, DTV, SKIP<br>VIDEO 4: DVD, DTV, SKIP<br>*When VIDEO LABEL is set to WEB, the picture will darken, creating an ideal picture for WebTV viewing.*<br>*If you select SKIP, your TV will skip this connection when you cycle through video sources using the TV/VIDEO button.* |
| **LANGUAGE** | Select from available languages to display all menus in your language of choice. |
| **TILT CORRECTION** | Press ↑ or ↓ to correct any tilt of the picture between +5 and –5 and press ⊕. |





## Programming the remote

You can use the supplied remote control to operate Sony or non-Sony video equipment.

**1** Press CODE SET.

**2** Press VTR / DVD (FUNCTION).

**3** Use the 0-9 buttons to key in the manufacturer's code number from the following chart.

**4** Press ENTER.

### VCR code numbers

| Manufacturer | Code |
|---|---|
| Sony | 301, 302, 303 |
| Admiral (M. Ward) | 327 |
| Aiwa | 338, 344 |
| Audio Dynamic | 314, 337 |
| Broksonic | 319, 317 |
| Canon | 309, 308 |
| Citizen | 332 |
| Craig | 302, 332 |
| Criterion | 315 |
| Curtis Mathes | 304, 338, 309 |
| Daewoo | 341, 312, 309 |
| DBX | 314, 336, 337 |
| Dimensia | 304 |
| Emerson | 319, 320, 316, 317, 318, 341 |
| Fisher | 330, 335 |
| Funai | 338 |
| General Electric | 329, 304, 309 |
| Go Video | 322, 339, 340 |
| Goldstar | 332 |
| Hitachi | 306, 304, 305,338 |
| Instant Replay | 309, 308 |
| JC Penney | 309, 305, 304, 330, 314, 336, 337 |
| JVC | 314, 336, 337, 345, 346, 347 |
| Kenwood | 314, 336, 332, 337 |
| LXI (Sears) | 332, 305, 330, 335, 338 |
| Magnavox | 308, 309, 310 |
| Marantz | 314, 336, 337 |
| Marta | 332 |
| Memorex | 309, 335 |
| Minolta | 305, 304 |
| Mitsubishi/MGA | 323, 324, 325, 326 |
| Multitech | 325, 338, 321 |
| NEC | 314, 336, 337 |
| Olympic | 309, 308 |
| Optimus | 327 |
| Panasonic | 308, 309, 306, 307 |
| Pentax | 305, 304 |
| Philco | 308, 309 |
| Philips | 308, 309, 310 |
| Pioneer | 308 |
| Quasar | 308, 309, 306 |
| RCA/PROSCAN | 304, 305, 308, 309, 311, 312, 313, 310, 329 |
| Realistic | 309, 330, 328, 335, 324, 338 |
| Sansui | 314 |
| Samsung | 322, 313, 321 |
| Sanyo | 330, 335 |
| Scott | 312, 313, 321, 335, 323, 324, 325, 326 |
| Sharp | 327, 328 |
| Shintom | 315 |
| Signature 2000 (M. Ward) | 338, 327 |
| SV2000 | 338 |
| Sylvania | 308, 309, 338, 310 |
| Symphonic | 338 |
| Tashiro | 332 |
| Tatung | 314, 336, 337 |
| Teac | 314. 336, 338, 337 |
| Technics | 309, 308 |
| Toshiba | 312, 311 |
| Wards | 327, 328, 335, 331, 332 |
| Yamaha | 314, 330, 336, 337 |
| Zenith | 331 |

| Operating a VCR | Buttons on the remote control |
|---|---|
| To turn on or off | Press VTR/DVD (POWER). |
| To select a channel directly | Press the 0 – 9 buttons. |
| To change channels | Press CH +/–. |
| To record | Press ► and ● simultaneously. |
| To play | Press ►. |
| To stop | Press ■. |
| To fast forward | Press ▶▶. |
| To rewind the tape | Press ◀◀. |
| To pause | Press ❚❚.<br>To resume normal playback, press again or press ►. |
| To scan | Press ▶▶ or ◀◀ during playback.<br>To resume normal playback, release the button. |
| To change input mode | Press TV/VTR. |

Tips

- In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. In this case, please use the equipment's own remote control.
- When you remove the batteries, the code number may revert to the factory setting.
- The code numbers for Sony VCR's are assigned at the factory as follows:

| | |
|---|---|
| VHS VCR | 301 (preset code for the supplied remote control) |
| 8 mm VCR | 302 |
| Beta, ED Beta VCRs | 303 |

### MDP (Multi Disc Player) code numbers

| Manufacturer | Code |
|---|---|
| Sony | 701 |
| Panasonic | 704, 710 |
| Pioneer | 702 |

| Operating an MDP | Buttons on the remote control |
|---|---|
| To turn on or off | Press VTR/DVD (POWER). |
| To play | Press ►. |
| To stop | Press ■. |
| To pause | Press ❚❚. To resume normal playback, press again or press ►. |
| To scan | Press ►► or ◄◄ during playback. To resume normal playback, press ►. |
| To search the chapter forward or backward | Press CH +/–. |

Tip

If you will not be programming a DBS or cable box into the DBS / CABLE function of your remote, you can use it to program other video equipment (e.g. DVD, MDP, or second VCR). (see page 26)

### DVD (Digital Versatile Disc) code numbers

| Manufacturer | Code |
|---|---|
| Sony | 751 |
| Panasonic | 753 |
| Pioneer | 752 |
| RCA | 755 |
| Toshiba | 754 |

| Operating a DVD player | Buttons on the remote control |
|---|---|
| To turn on or off | Press VTR/DVD (POWER). |
| To play | Press ►. |
| To stop | Press ■. |
| To pause | Press ❚❚. To resume normal playback, press again or press ►. |
| To scan | Press ►► or ◄◄ during playback. To resume normal playback, press ►. |
| To search the chapter forward or backward | Press CH +/–. |
| To select chapters directly | 0–9 + ENTER. |
| MENU | Press to display DVD menu. |
| To move cursor in menu | Use your arrow buttons ↑, ↓, ←, →. |



## Operating a Cable Box or DBS Receiver

### Programming the remote

You can program the supplied remote control to operate a cable box or DBS receiver.

1 Press CODE SET.
2 Press DBS / CABLE (FUNCTION).
3 Use the 0-9 buttons to key in the manufacturer's code number from the following chart.
4 Press ENTER.

### For more details on operating the cable box or DBS receiver

Refer to the operating instructions that were supplied with the equipment.

### If the remote control doesn't work

- First, try repeating the setup procedures using the other codes listed for your equipment.

Tips

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's supplied remote control.
- Whenever you remove the batteries the code numbers may revert to the factory setting.

### Cable box code numbers

| Manufacturer | Code |
|---|---|
| Hamlin / Regal | 222, 223, 224, 225, 226 |
| Jerrold / G. I. | 201, 202, 203, 204, 205, 206, 207, 208, 218 |
| Oak | 227, 228, 229 |
| Panasonic | 219, 220, 221 |
| Pioneer | 214, 215 |
| Scientific Atlanta | 209, 210, 211 |
| Tocom | 216, 217 |
| Zenith | 212, 213 |

### DBS receiver code numbers

| Manufacturer | Code |
|---|---|
| Sony | 801 (preset code for remote control) |
| General Electric | 802 |
| Hitachi | 805 |
| Hughes | 804 |
| Panasonic | 803 |
| RCA / PROSCAN | 802, 808 |
| Toshiba | 806, 807 |





## Troubleshooting

Consult the table below; it suggests solutions to specific problems.

| | | |
|---|---|---|
| You want to restore the TV's factory settings | | • First, turn the TV on. Then while pressing the RESET button on the remote control, press the POWER button on the TV. The TV will turn itself off and then back on. When the TV turns on again, all settings will be reset, and the Easy Setup Guide will appear. |
| A red light keeps flashing on the TV for more than a few seconds | • Your TV may need service. | • Call your local Sony service center. |
| TV makes a noise when turned on | • This is a normal function of your TV. | |
| Screen is not lit and there is no sound | • Power cord may not be plugged in.<br>• Batteries may not be inserted correctly.<br>• TV / VIDEO setting may be incorrect. | • Press TV / VIDEO until you receive a channel. |
| Poor or no picture (screen lit), good sound | • VIDEO menu settings may not be adjusted correctly.<br>• Antenna / cable connections may be faulty.<br>• VIDEO LABEL inputs may be set to WEB. (This label darkens the screen for ideal WebTV viewing) | • Readjust your VIDEO menu settings. (see page 21)<br>• Check your VIDEO LABEL settings. (see page 25) |
| Good picture, no sound | • Sound may be set to MUTING.<br>• Your TV may be set to SAP.<br>• Speaker may not be set correctly. | • Press MUTING.<br>• Check the MTS setting in the AUDIO menu. (see page 22)<br>• Check your SPEAKER settings. (see page 22) |
| No color | • Color settings may not be adjusted correctly. | • Adjust the COLOR settings in the VIDEO menu. (see page 21) |



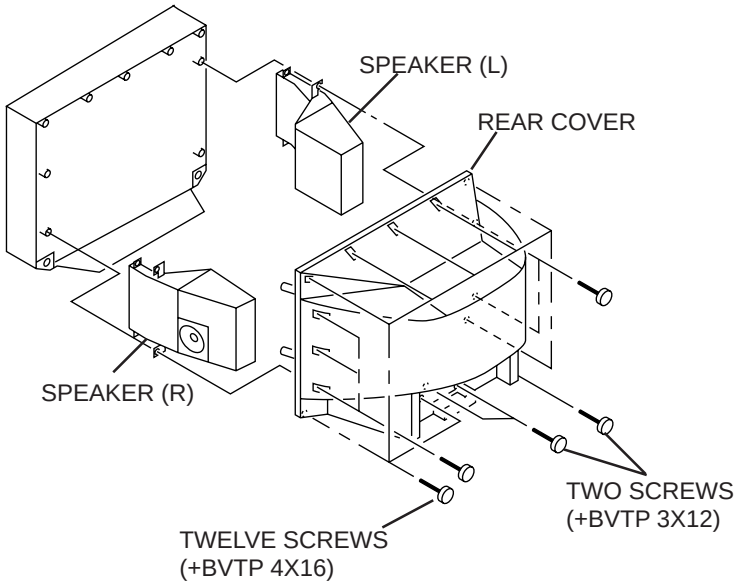
## Troubleshooting (continued)

| | | |
|---|---|---|
| Only snow and noise appear on the screen | • CABLE may not be set correctly in the SET UP menu.<br>• Antenna / cable connections may not be correct.<br>• TV may be set to AUX mode. | • Ensure that you have selected the correct CABLE mode in the SET UP menu. (see page 24)<br>• Press ANT on your remote control to change the input mode. (see page 16) |
| Cannot receive upper channels (UHF) when using an antenna | • CABLE setting may not be correct in the SET UP menu. | • Ensure that CABLE is set to OFF in the SET UP menu. (see page 24)<br>• Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 24) |
| Cannot receive any channels when using cable | • CABLE setting may not be set correctly in the SET UP menu. | • Ensure that CABLE is set to ON in the SET UP menu. (see page 24)<br>• Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 24) |
| Cannot gain enough volume when using a cable box | • Volume may not be adjusted on your cable box. | • Press TV (FUNCTION) and adjust the TV's volume. |
| TV is fixed to one channel | • CHANNEL FIX settings may not be correct. | • Check your CHANNEL FIX settings. (see page 24) |

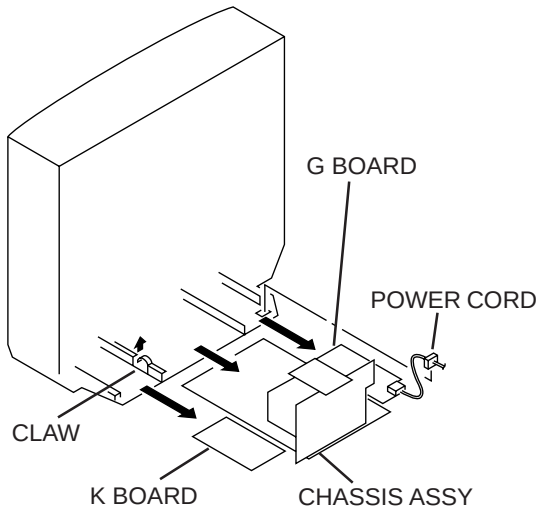
If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Direct Response Center at 1-800-222-SONY (7669)(U.S. residents only) or (416) 499-SONY (7669)(customers in Canada only).

# SECTION 2
# DISASSEMBLY

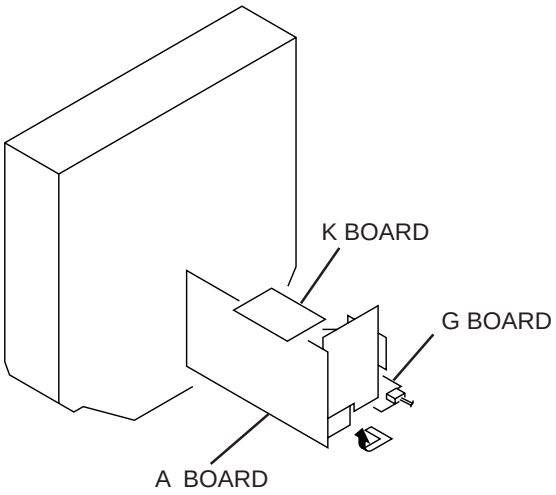
## 2-1. REAR COVER AND SPEAKER REMOVAL



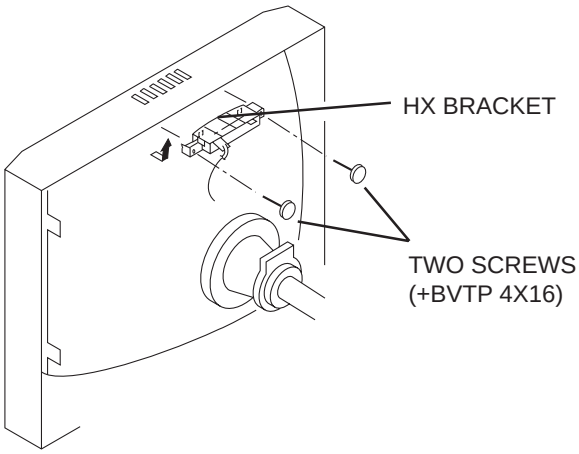

## 2-2. CHASSIS ASSEMBLY REMOVAL



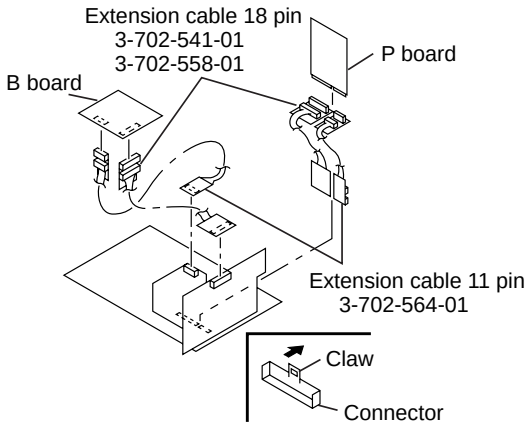

## 2-3. SERVICE POSITION




## 2-4. HX BRACKET REMOVAL



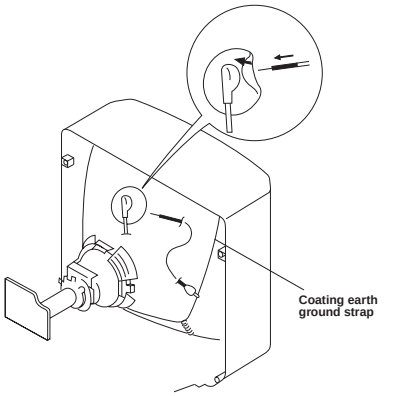

## 2-5. EXTENSION CABLE

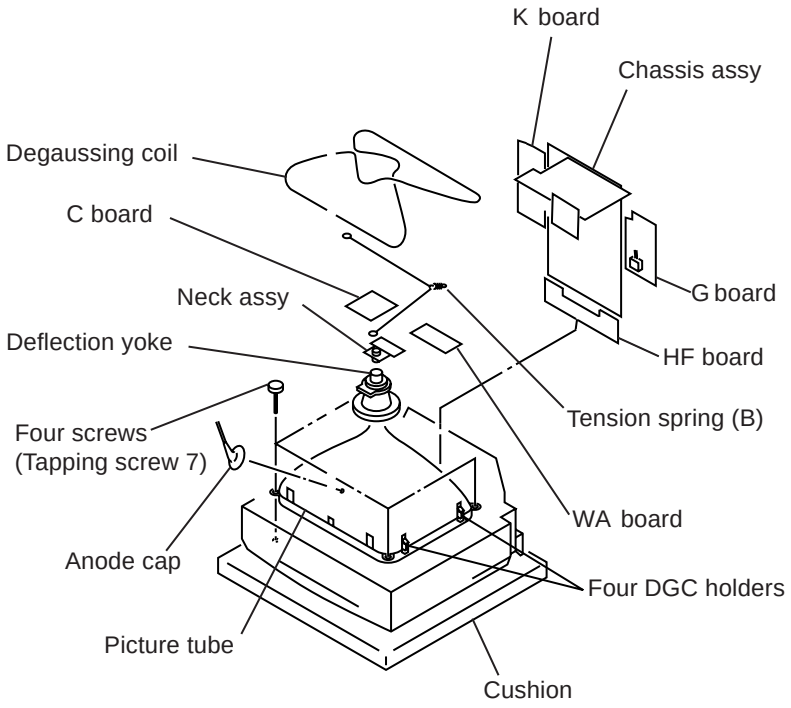


## 2-6. PICTURE TUBE REMOVAL

**WARNING**
**BEFORE REMOVING ANODE CAP**

H.V. remains in the CRT even after the power is disconnected.
Discharge CRT before attempting to remove the anode cap to avoid electrical shock. Short between anode and CRT coating earth ground strap.



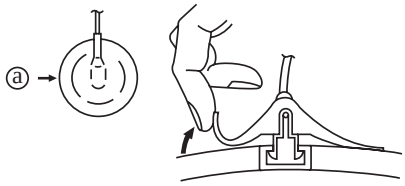




## ANODE-CAP REMOVAL

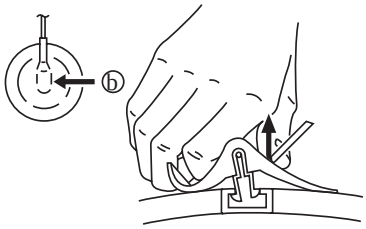
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

NOTE: After removing the anode, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield or carbon painted on the CRT.

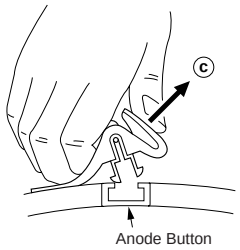
### REMOVAL PROCEDURES




① Turn up one side of the rubber cap in the direction indicated by arrow ⓐ.



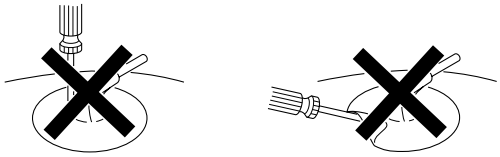

Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ.




③ When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ.

### HOW TO HANDLE AN ANODE-CAP

① Do not use sharp objects which may cause damage to the surface of the anode-cap.
② Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
③ Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



# SECTION 3
# SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls and switch as follows unless otherwise noted:

VIDEO MODE: STANDARD
PICTURE control ..... 100%
BRIGHTNESS control ..... 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)/White Balance

**Note:** Test Equipment Required

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

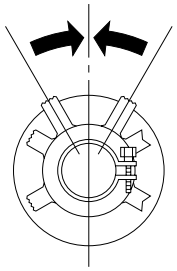
## 3-1. BEAM LANDING

**Preparation:**

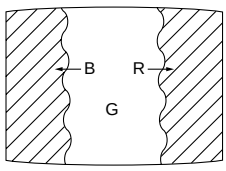
- Input a white pattern signal.
- Face the picture tube in a East or West direction to reduce the influence of geomagnetism.

NOTE: Do not use the hand degausser because it magnetizes the CRT .

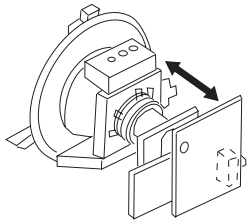
1. Input white pattern from pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



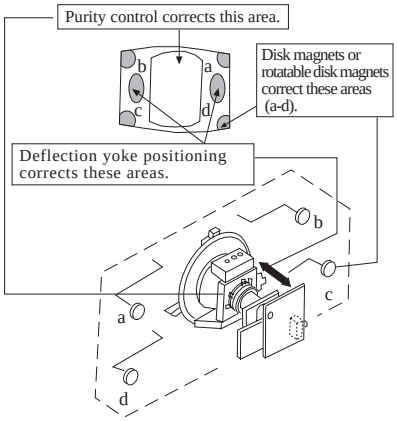
3. Input green pattern from pattern generator.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.




5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets.



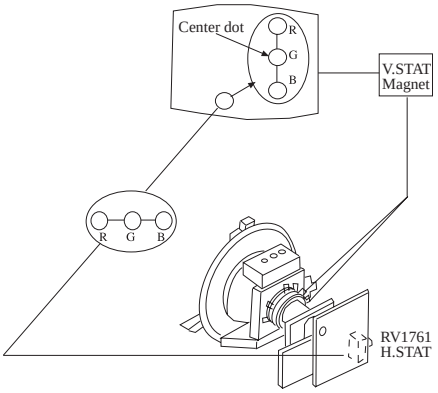
## 3-2. CONVERGENCE

**Preparation:**

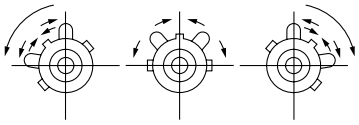
- Before starting, perform FOCUS, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Input dot pattern.

### (1) Vertical and Horizontal Static Convergence

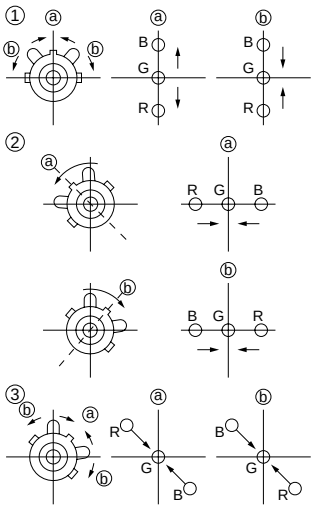
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement Adjust HSTAT RV to converge.




Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



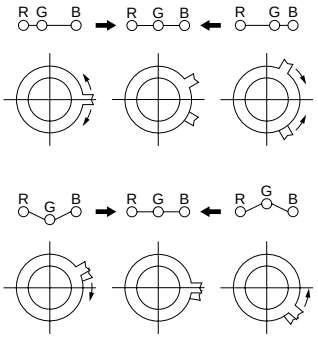
2. When the V. STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green, and blue dots move as shown below:




**Operation of BMC (Hexapole) Magnet**

The respective dot positions resulting from moving each magnet interact, so perform adjustment while tracking.

Use the VSTAT tabs to adjust the red, green, and blue dots so they line up at the center of the screen (move the dots in a horizontal direction.)

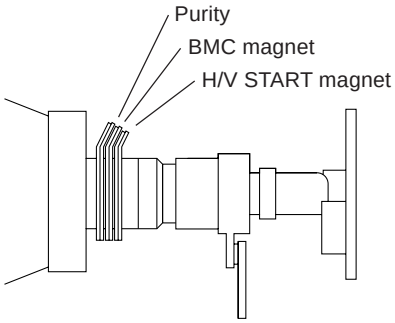



**Y Separation Axis Correction Magnet Adjustment**

1. Input cross-hatch pattern, adjust PICTURE to minimum and BRIGHTNESS to normal.

2. Adjust the deflection yoke upright so it touches the CRT.

3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical from top to bottom (open state).

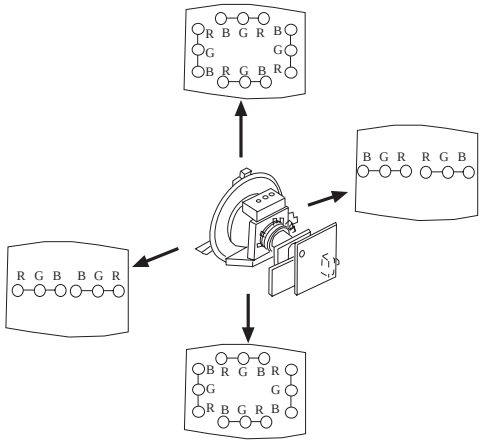



4. Return the deflection yoke to its original position.

### ( 2 ) Dynamic Convergence Adjustment

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

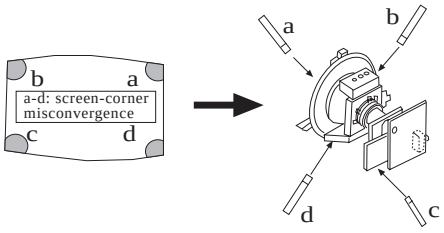
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:




4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.
6. Adjust vertical red and blue convergence with VLT (VR).
7. Adjust horizontal red and blue convergence with YCH (VR).

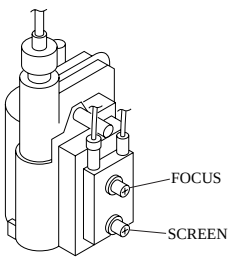
### (3) Screen-corner Convergence

Affix a permalloy assembly to correspond with the misconverged areas:



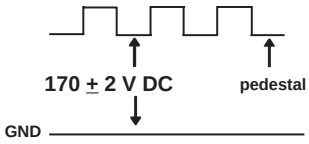

## 3-3. FOCUS

Adjust FOCUS control for best picture.




## 3-4. SCREEN (G2)

1. Input dot pattern from the pattern generator.
2. Set the PICTURE and BRIGHT controls at normal.
3. Adjust S BRT, G CUT, B CUT in service mode with an oscilloscope so that voltages on the red, green, and blue cathodes are 170V ± 2 V DC.
4. Observe the screen and adjust SCREEN (G2) VR on FBT to obtain the faintly visible background of dot signal.




## 3-5. WHITE BALANCE ADJUSTMENTS

| NO. | Disp. | Item | Average |
|---|---|---|---|
| 18 | GDRV | Green Drive | 36 |
| 19 | BDRV | Blue Drive | 25 |
| 20 | GCUT | Green Cut-off | 3 |
| 21 | BCUT | Blue Cut-off | 10 |
| 29 | SBRT | Sub Bright | 30 |

1. Input an entire white signal.
2. Set to Service adjustment Mode.
3. Set the PICTURE and BRIGHT to minimum.
4. Adjust with SBRT if necessary.
5. Select GCUT and BCUT with [1] and [4] .
6. Adjust with [3] and [6] for the best white balance.
7. Set the PICTURE and BRIGHT to maximum.
8. Select GDRV and BDRV with [1] and [4] .
9. Adjust with [3] and [6] for the best white balance.
10. After adjusting the white balance, adjust the white balance video four as follows:

| NO. | Disp. | Item | |
|---|---|---|---|
| 22 | 4GDR | Green Drive | GDRV+2 |
| 23 | 4BDR | Blue Drive | BDRV +1 |
| 24 | 4GCT | Green Cut-off | GCUT |
| 25 | 4BCT | Blue Cut-off | BCUT-1 |

11. Write into the memory by pressing [MUTING] then [ENTER] .

# SECTION 4
# SAFETY RELATED ADJUSTMENTS

## ⋈ R530, R531 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

Always perform the following adjustments when replacing the following components marked with a ◪ mark on the schematic diagram:

| | |
|---|---|
| **A BOARD:** | IC351, IC501, D519, D520, D521, C531, C532, R387, R529, R530, R531, R532, R533, R550, T503 |
| **G BOARD:** | IC643, R661 |

**Step 1** Preparation before Confirmation

Turn the POWER switch ON.

Input a white signal and set the PICTURE and BRIGHT controls to maximum.

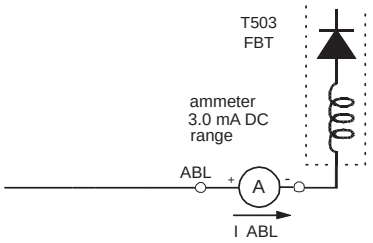
Confirm that the voltage at the check terminal of TP85 is more than 23.0 V DC when the set is operating normally.

At AC input: 120.0 ± 2.0 VAC

**Step 2**

Input a white signal and verify that I ABL is within the specified range: 2175 ± 100 µA.

At AC input: 120.0 ± 2.0 VAC




**Step 3**

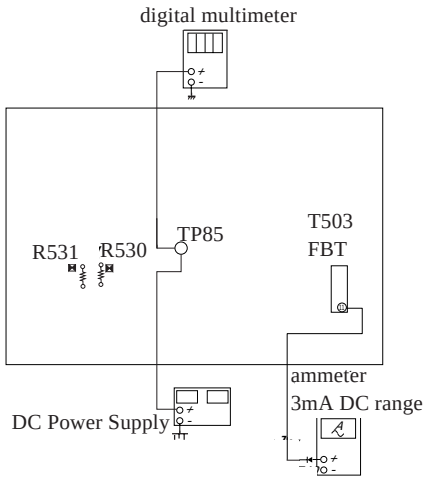
Record the voltage between TP85 and ground.

**Step 4**

Using an external DC power supply, apply voltage between TP85 and ground.

Increase the voltage gradually and confirm that the holdown works (raster disappears) at lower than the voltage recorded in Step 3.

Lower than 27.24 V DC
At AC input: 120.0 ± 2.0 VAC




**A BOARD - CONDUCTOR SIDE**

**Step 5**

Confirm that a voltage of more than 23.0 V DC appears between TP85 and ground.

At AC input: 120.0 ± 2.0 VAC

## B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components marked with ◪ on the schematic diagram:

**G BOARD:** IC643, R661

1) Using Variac, apply AC input voltage: 130 ± 2.0 VAC
2) Input a monoscope signal.
3) Set the PICTURE control and the BRIGHTNESS control to initial reset value.
4) Confirm the voltage of G BOARD CN641 between pin ① to ground is less than 136.5 ± 1.0 V DC.
5) If step 4 is not satisfied, replace the R661and repeat the above steps.

# SECTION 5
# CIRCUIT ADJUSTMENTS

## ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use Remote Commander (RM-Y167) to perform the following circuit adjustments:

NOTE : Test Equipment Required:

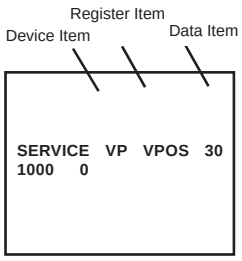
1. Pattern Generator
2. Frequency Counter
3. Digital Multimeter
4. Audio OSC

### (1) Setting the Service Adjustment Mode

SERVICE MODE PROCEDURE

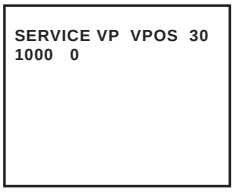
1. Standby mode. (Power off)
2. DISPLAY → 5 → VOL (+) → POWER on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN




3. The CRT displays the item being adjusted.
4. Press 2 or 5 on the Remote Commander to select the device item.
5. Press 1 or 4 on the Remote Commander to select the item.
6. Press 3 or 6 on the Remote Commander to change the data.
7. To recover the latest values, press "0" then ENTER.
8. Press MUTING then ENTER to write into memory.

SERVICE ADJUSTMENT MODE MEMORY

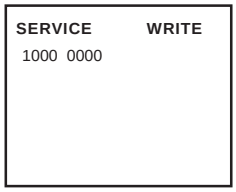



MUTING Green

↓

ENTER Red

9. Press 8 then ENTER on the Remote Commander to reset.



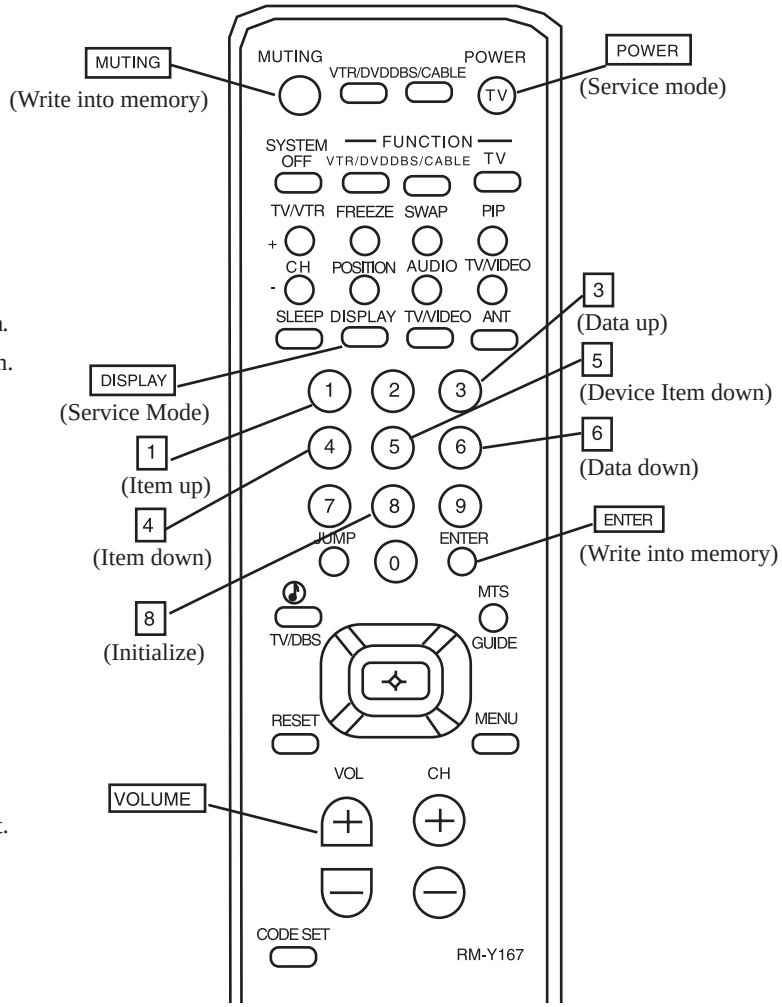

Carry out step 8 when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

10. Turn set off and on to exit.

### (2) Memory Write Confirmation Method

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

### (3) Adjust Buttons and Indicator




**RM-Y167**

## (4) Service Data (1/4)

| No. | Register Name | Description | Data Length | Initial Data | Average Data | COMMENT |
|---|---|---|---|---|---|---|
| **VP** | **CXA2095AS** | | | | | |
| 1 | VPOS | V-Position | 0-63 | 20 | 21 | Adjust |
| 2 | VSIZ | V-Size | 0-63 | 20 | 38 | Adjust |
| 3 | PVSZ | V-Size | 0-63 | 20 | 31 | Adjust |
| 4 | VCOM | V-Compensation | 0-3 | 1 | 1 | Fix |
| 5 | VLIN | V-Linearity | 0-15 | 7 | 12 | Adjust |
| 6 | VSCO | S-Correction | 0-15 | 7 | 8 | Adjust |
| 7 | HPOS | H-Position | 0-15 | 7 | 14 | Adjust |
| 8 | HSIZ | H-Size | 0-63 | 18 | 23 | Adjust |
| 9 | PHSZ | H-Size | 0-63 | 20 | 9 | Adjust |
| 10 | PAMP | PIN-Compensation | 0-63 | 31 | 19 | Adjust |
| 11 | UPIN | Upper-CornerPin | 0-15 | 7 | 6 | Adjust |
| 12 | LPIN | Lower-CornerPin | 0-15 | 7 | 8 | Adjust |
| 13 | PPHA | Pin-Phase | 0-15 | 7 | 3 | Adjust |
| 14 | AFC | AFC | 0-3 | 2 | 2 | Fix |
| 15 | VBOW | AFC-Bow | 0-15 | 7 | 8 | Adjust |
| 16 | VANG | AFC-Angle | 0-15 | 7 | 3 | Adjust |
| 17 | REF | Reference-Position | 0-3 | 2 | 2 | Fix |
| 18 | GDRV | Green-Drive | 0-63 | 31 | 31 | Adjust |
| 19 | BDRV | Blue-Drive | 0-63 | 31 | 25 | Adjust |
| 20 | GCUT | Green-Cutoff | 0-15 | 7 | 3 | Adjust |
| 21 | BCUT | Blue-Cutoff | 0-15 | 7 | 10 | Adjust |
| 22 | 4GDR | Green-Drive | 0-63 | 31 | 29 | Adjust |
| 23 | 4BDR | Blue-Drive | 0-63 | 31 | 24 | Adjust |
| 24 | 4GCT | Green-Cutoff | 0-15 | 7 | 8 | Adjust |
| 25 | 4BCT | Blue-Cutoff | 0-15 | 7 | 11 | Adjust |
| 26 | SCON | Sub-Contrast | 0-15 | 7 | 6 | Adjust |
| 27 | SHUE | Sub-Hue | 0-15 | 7 | 6 | Adjust |
| 28 | SCOL | Sub-Color | 0-15 | 7 | 7 | Adjust |
| 29 | SBRT | Sub-Brightness | 0-63 | 31 | 30 | Adjust |
| 30 | SSHP | Sub-Sharpness | 0-15 | 7 | 7 | Fix |
| 31 | CDM2 | Count Down Mode2 | 0, 1 | 1 | 1 | Fix |
| 32 | DPIX | Dynamic-Picture | 0, 1 | 1 | 1 | Fix |
| 33 | Y-DC | DC-Transmission | 0, 1 | 1 | 1 | Fix |
| 34 | ABLM | ABL | 0, 1 | 1 | 1 | Fix |
| 35 | NOTC | ChromaTrap | 0, 1 | 0 | 0 | Fix |
| 36 | CROM | ChromaTrap-Adjust | 0-15 | 7 | 7 | Fix |
| 37 | TOT | TOT-Filter | 0, 1 | 1 | 1 | Fix |
| 38 | PREL | Pre/Over-Shoot | 0-3 | 0 | 0 | Fix |
| 39 | SHPF | Sharpness-f0 | 0-3 | 2 | 2 | Fix |
| 40 | RON | Red-Off | 0, 1 | 1 | 1 | Fix |
| 41 | GON | Green-Off | 0, 1 | 1 | 1 | Fix |
| 42 | BON | Blue-Off | 0, 1 | 1 | 1 | Fix |
| 43 | CDMD | V-Countdown | 0, 1 | 0 | 0 | Fix |
| 44 | HBSW | HBLKSW | 0, 1 | 0 | 0 | Fix |
| 45 | LBLK | Left Blanking | 0-15 | 7 | 7 | Fix |
| 46 | RBLK | Right Blanking | 0-15 | 7 | 7 | Fix |
| **AP** | **BH3856** | | | | | |
| 47 | SVOL | Sub-Volume | 0-15 | 0 | 0 | Fix |
| 48 | SBAL | Sub-Balance | 0-15 | 7 | 7 | Fix |
| 49 | SBAS | Sub-Bass | 0-15 | 7 | 7 | (Fix by Model) |
| 50 | STRE | Sub-Treble | 0-15 | 7 | 7 | (Fix by Model) |
| **TS** | **TC9447F** | | | | | |
| 51 | TB0U | B0h Upper 8bit | 0-255 | 0 | 0 | Fix |
| 52 | TB0L | B0h Lower 8bit | 0-255 | 0 | 0 | Fix |
| 53 | TB1U | B1h Upper 8bit | 0-255 | 0 | 0 | Fix |
| 54 | TB1L | B1h Lower 8bit | 0-255 | 0 | 0 | Fix |
| 55 | TB2U | B2h Upper 8bit | 0-255 | 57 | 57 | Fix |
| 56 | TB2L | B2h Lower 8bit | 0-255 | 0 | 0 | Fix |
| 57 | TBFU | BFh Upper 8bit | 0-255 | 166 | 166 | Fix |
| 58 | TBFL | BFh Lower 8bit | 0-255 | 0 | 0 | Fix |
| 59 | TC0U | C0h Upper 8bit | 0-255 | 90 | 90 | Fix |
| 60 | TC0L | C0h Lower 8bit | 0-255 | 0 | 0 | Fix |
| 61 | TC1U | C1h/C7h Upper 8bit | 0-255 | 79 | 49 | Fix |
| 62 | TC1L | C1h/C7h Lower 8bit | 0-255 | 0 | 0 | Fix |
| 63 | MADU | ADh Upper 8bit | 0-255 | 64 | 64 | Fix |
| 64 | MADL | ADh Lower 8bit | 0-255 | 0 | 0 | Fix |
| 65 | MB0U | B0h Upper 8bit | 0-255 | 92 | 92 | Fix |
| 66 | MB0L | B0h Lower 8bit | 0-255 | 0 | 0 | Fix |

## Service Data (2/4)

| No. | Register Name | Description | Data Length | Initial Data | Average Data | Adj/Fix |
|---|---|---|---|---|---|---|
| **3D** | **uPD6488** | | | | | |
| 67 | CGAN | CGAIN | 0, 1 | 1 | 1 | Fix |
| 68 | AVAP | AVAPON | 0, 1 | 1 | 1 | Fix |
| 69 | MS | MS0/MS1 | 0- 2 | 0 | 0 | Fix |
| 70 | YDLL | YDELAY-L | 0-7 | 2 | 2 | Fix |
| 71 | HRD8 | HRD08 | 0, 1 | 0 | 0 | Fix |
| 72 | HRD7 | HRD00-07 | 0-255 | 12 | 12 | Fix |
| 73 | DYCO | DYCOR | 0-15 | 5 | 5 | Fix |
| 74 | DYGA | DYGAIN | 0-15 | 8 | 8 | Fix |
| 75 | DCCO | DCCOR | 0-15 | 3 | 3 | Fix |
| 76 | DCCG | DCGAIN | 0-15 | 7 | 7 | Fix |
| 77 | VTR0 | VTR0/VTR1 | 0-2 | 0 | 0 | Fix |
| 78 | VTRH | VTRH | 0-2 | 2 | 2 | Fix |
| 79 | VTRR | VTRR | 0-15 | 7 | 7 | Fix |
| 80 | SELJ | SELJ | 0, 1 | 1 | 1 | Fix |
| 81 | HSDR | HSDR | 0-15 | 7 | 7 | Fix |
| 82 | WSCO | WSCOR | 0-15 | 15 | 15 | Fix |
| 83 | LDSR | LDSREF | 0-15 | 7 | 7 | Fix |
| 84 | WSD1 | WSDR1 | 0-15 | 15 | 15 | Fix |
| 85 | WSD2 | WSDR2 | 0-15 | 15 | 15 | Fix |
| 86 | VAPG | VAPGAIN | 0-7 | 4 | 4 | Fix |
| 87 | VAPI | VAPINV | 0-31 | 15 | 15 | Fix |
| 88 | MDTE | MDTES | 0, 1 | 0 | 0 | Fix |
| 89 | YTM8 | YTM87 | 0, 1 | 0 | 0 | Fix |
| 90 | DYTR | DYTRAP | 0, 1 | 1 | 1 | Fix |
| 91 | VHG | VHG | 0-3 | 3 | 3 | Fix |
| 92 | YH87 | YH87 | 0, 1 | 0 | 0 | Fix |
| 93 | YSG | YSG | 0, 1 | 1 | 1 | Fix |
| 94 | YTG | YTG | 0-3 | 1 | 1 | Fix |
| 95 | VTMR | YTMREF | 0-15 | 12 | 12 | Fix |
| 96 | VHRE | VHREF | 0-15 | 11 | 11 | Fix |
| 97 | YT1R | YT1REF | 0-15 | 2 | 2 | Fix |
| 98 | CT2Y | CT2YT | 0, 1 | 0 | 0 | Fix |
| 99 | CTG | CTG | 0 - 3 | 1 | 1 | Fix |
| 100 | CTMR | CTMREF | 0-15 | 10 | 10 | Fix |
| 101 | CT2R | CT2REF | 0-15 | 10 | 10 | Fix |
| 102 | CT1R | CT1REF | 0-15 | 7 | 7 | Fix |
| **PI** | **TA1226N** | | | | | |
| 103 | SHPR | Sharpness | 0-127 | 59 | 59 | Fix |
| 104 | SRTS | SRT Start Position | 0, 1 | 3 | 3 | Fix |
| 105 | GIRE | Gamma Start Point | 0-3 | 3 | 3 | Fix |
| 106 | GCUR | Gamma Curve | 0, 1 | 0 | 0 | Fix |
| 107 | RS | RS | 0- 7 | 0 | 0 | Fix |
| 108 | RTC | RTC | 0- 7 | 4 | 4 | Fix |
| **DC** | **CXA2026AS** | | | | | |
| 109 | DCSF | DCSHIFT | 0-63 | 32 | 41 | Fix or Adjust |
| 110 | UYBW | UYBOW | 0-63 | 31 | 31 | Fix |
| 111 | LYBW | LYBOW | 0-63 | 31 | 31 | Fix |
| 112 | HAMP | HAMP | 0-63 | 23 | 9 | Fix or Adjust |
| 113 | UCBW | UCBOW | 0-63 | 14 | 14 | Fix |
| 114 | LCBW | LCBOW | 0-63 | 14 | 14 | Fix |
| 115 | UMBH | UMBH | 0-63 | 15 | 15 | Fix |
| 116 | LMBH | LMBH | 0-63 | 15 | 15 | Fix |
| 117 | PWM | PWM | 0-63 | 63 | 63 | Fix |
| 118 | HTLT | HTILT | 0-63 | 63 | 63 | Fix |
| 119 | UTLT | UTILT | 0-63 | 63 | 63 | Fix |
| 120 | LTLT | LTILT | 0-63 | 63 | 63 | Fix |
| 121 | HDTY | HDUTY | 0-4 | 3 | 3 | Fix |
| 122 | TOFF | TILT OFF | 0,1 | 1 | 1 | Fix |
| 123 | DAC0 | DAC0 | 0-255 | 255 | 255 | Fix |
| 124 | DAC1 | DAC1 | 0-255 | 255 | 255 | Fix |

## Service Data (3/4)

| No. | Register Name | Description | Data Length | Initial Data | Average Data | Adj/Fix |
|---|---|---|---|---|---|---|
| **PP** | **SAB9076** | | | | | |
| 125 | SMT6 | SMART6 | 0, 1 | 1 | 1 | Fix |
| 126 | SKP6 | SKIP6 | 0, 1 | 0 | 0 | Fix |
| 127 | BGHP | BGhfp | 0-15 | 7 | 8 | Adjust |
| 128 | BGVP | BGvfp | 0-15 | 8 | 8 | Adjust |
| 129 | MAHP | MAhfp | 0-15 | 6 | 6 | Adjust |
| 130 | MAVP | MAvfp | 0-255 | 24 | 24 | Adjust |
| 131 | SAHP | SAhfp | 0-15 | 3 | 3 | Fix |
| 132 | SAVP | SAvfp | 0-255 | 24 | 24 | Fix |
| 133 | VPED | PedestV | 0-15 | 14 | 0 | Fix |
| 134 | UPED | PedestU | 0-15 | 14 | 0 | Fix |
| 135 | MDEC | Main Decoder Setting | 0- 32 | 18 | 18 | Fix |
| 136 | SDEC | Sub Decoder Setting | 0- 32 | 16 | 16 | Fix |
| 137 | DISS | Display Setting | 0-126 | 2 | 2 | Fix |
| 138 | BSIZ | Border Size | 0-255 | 34 | 34 | Fix |
| 139 | POFH | PIP Offset H | 0- 15 | 11 | 11 | Fix |
| 140 | POFV | PIP Offset V | 0- 15 | 6 | 6 | Fix |
| 141 | DHPS | Display H Position Start | 0- 15 | 4 | 5 | Fix |
| 142 | P&PV | SDhfp , MDhfp under P&P | 0-255 | 62 | 62 | Fix |
| 143 | BBR0 | BorderColor0 Brightness | 0-3 | 1 | 1 | Fix |
| 144 | BCL0 | BorderColor0 Color | 0-7 | 7 | 7 | Fix |
| 145 | BBR2 | BorderColor2 Brightness | 0-3 | 2 | 2 | Fix |
| 146 | BCL2 | BorderColor2 Color | 0-7 | 6 | 6 | Fix |
| 147 | BBR3 | BackgroundColor Brightness | 0-3 | 0 | 0 | Fix |
| 148 | BCL3 | BackgroundColor Color | 0-7 | 7 | 7 | Fix |
| **SP** | **SDA9288** | | | | | |
| 149 | PYSD | Select Delay | 0-15 | 3 | 3 | Fix |
| 150 | PIPH | PIP H-Position | 0-127 | 78 | 78 | Fix |
| 151 | PIPV | PIP V-Position | 0-63 | 18 | 18 | Fix |
| 152 | PYDL | PIP Y-delay | 0-7 | 0 | 0 | Fix |
| 153 | PHDL | H-pulse delay | 0-15 | 3 | 3 | Fix |
| 154 | PMVD | Main V-pulse delay | 0-31 | 16 | 16 | Fix |
| 155 | PIVD | Inset V-pulse delay | 0-31 | 22 | 22 | Fix |
| 156 | PCON | Inset Contrast | 0-15 | 7 | 7 | Fix |
| 157 | FRMY | Frame Y | 0-15 | 7 | 7 | Fix |
| 158 | CHRI | Input Polarity | 0,1 | 1 | 1 | Fix |
| 159 | CHRO | Output Polarity | 0,1 | 1 | 1 | Fix |
| 160 | IPER | Inset Pedestal R-Y | 0-15 | 0 | 0 | Fix |
| 161 | IPEB | Inset Pedestal B-Y | 0-15 | 0 | 0 | Fix |
| 162 | PCPS | CLPS BIt Control | 0,1 | 0 | 0 | Fix |
| 163 | PCPF | CLPFIX BIt Control | 0,1 | 0 | 0 | Fix |
| 164 | PSEL | SELDOWN Bit Control | 0,1 | 1 | 1 | Fix |
| 165 | PPLL | PLL Filter Bits | 0-3 | 1 | 0 | Fix |
| 166 | PVNR | PVNR bit | 0, 1 | 0 | 1 | Fix |
| **MC** | **CXA2019** | | | | | |
| 167 | MHUE | HUE | 0-63 | 26 | 26 | Fix |
| 168 | MCOL | COLOR | 0-63 | 35 | 35 | Fix |
| 169 | MSCO | SUB CONT | 0-15 | 7 | 7 | Adjust |
| 170 | MSCL | SUB COLOR | 0-15 | 7 | 7 | Adjust |
| 171 | MSHU | SUB HUE | 0-15 | 7 | 7 | Adjust |
| 172 | MTOT | TOT ON | 0, 1 | 1 | 1 | Fix |
| 173 | MTRP | TRAP ON | 0, 1 | 0 | 0 | Fix |
| 174 | MTRA | CTRAPADJ | 0-15 | 7 | 7 | Fix |
| 175 | MCD2 | CD MODE2 | 0, 1 | 1 | 1 | Fix |
| 176 | MFSC | FSC OUT | 0, 1 | 1 | 1 | Fix |
| 177 | MYDR | Y DRIVE | 0-31 | 22 | 22 | Fix |
| 178 | MVPE | V PED | 0-15 | 7 | 7 | Adjust |
| 179 | MUPE | U PED | 0-15 | 7 | 7 | Adjust |
| 180 | MRVP | RV PED | 0-15 | 0 | 0 | Fix |
| 181 | MRUP | RU PED | 0-15 | 0 | 0 | Fix |
| 182 | MDCT | DC TRAN | 0-7 | 0 | 0 | Fix |
| 183 | MRYD | RY DRIVE | 0-31 | 31 | 31 | Fix |
| 184 | MPRE | PRE OVER | 0-3 | 0 | 0 | Fix |
| 185 | MRUD | RU DRIVE | 0-31 | 15 | 15 | Fix |
| 186 | MRVD | RV DRIVE | 0-31 | 15 | 15 | Fix |
| 187 | MDLY | DELAY | 0-3 | 0 | 0 | Fix |
| 188 | MSCR | SCP BGR | 0-3 | 1 | 1 | Fix |
| 189 | MSCF | SCP BGF | 0-3 | 1 | 1 | Fix |

## Service Data (4/4)

| No. | Register Name | Description | Data Length | Initial Data | Average Data | Adj/Fix |
|---|---|---|---|---|---|---|
| **IC CXA2019** | | | | | | |
| 190 | ICYC | CV/YC | 0,1 | 1 | 0 | (Fix by model) |
| 191 | IHUE | HUE | 0-63 | 24 | 24 | Fix |
| 192 | ICOL | COLOR | 0-63 | 37 | 37 | Fix |
| 193 | ISCO | SUB CONT | 0-15 | 6 | 5 | Adjust(FD7) |
| 194 | ISCL | SUB COLOR | 0-15 | 7 | 6 | Adjust(FD7) |
| 195 | ISHU | SUB HUE | 0-15 | 7 | 13 | Adjust(FD7) |
| 196 | ITOT | TOT ON | 0, 1 | 1 | 1 | Fix |
| 197 | ITRP | TRAP ON | 0, 1 | 0 | 1 | Fix |
| 198 | ITRA | CTRAPADJ | 0-15 | 7 | 7 | Fix |
| 199 | ICD2 | CD MODE2 | 0, 1 | 1 | 1 | Fix |
| 200 | IYDR | Y DRIVE | 0-31 | 24 | 31 | Fix |
| 201 | IVPE | V PED | 0-15 | 7 | 6 | Adjust (FD7) |
| 202 | IUPE | U PED | 0-15 | 7 | 6 | Adjust (FD7) |
| 203 | IRVP | RV PED | 0-15 | 0 | 6 | Fix |
| 204 | IRUP | RU PED | 0-15 | 2 | 6 | Fix |
| 205 | IDCT | DC TRAN | 0-7 | 0 | 1 | Fix |
| 206 | IRYD | RY DRIVE | 0-31 | 31 | 12 | Fix |
| 207 | IPRE | PRE OVER | 0-3 | 0 | 0 | Fix |
| 208 | IRUD | RU DRIVE | 0-31 | 15 | 15 | Fix |
| 209 | IRVD | RV DRIVE | 0-31 | 15 | 15 | Fix |
| 210 | IDLY | DELAY | 0-3 | 0 | 0 | Fix |
| 211 | ISCR | SCP BGR | 0-3 | 1 | 1 | Fix |
| 212 | ISCF | SCP BGF | 0-3 | 1 | 1 | Fix |
| **DA CXA1315** | | | | | | |
| 213 | RTCO | DAC0(Rotation Coil) | 0-63 | 32 | 32 | Fix |
| 214 | 2HUE | DAC1(CXA2039 Hue) | 0-63 | 28 | 28 | Adjust |
| 215 | 2COL | DAC2(CXA2039 COL) | 0-63 | 31 | 42 | Adjust |
| **CC CXP858** | | | | | | |
| 216 | CRIL | CRI Count Low | 0-15 | 2 | 2 | Fix |
| 217 | CFLD | Feild Count for VCR FF,REV | 0-15 | 5 | 5 | Fix |
| 218 | CCDI | CCD INT | 0-7 | 3 | 3 | Fix |
| 219 | CRIP | CRI & Parity | 0-7 | 4 | 4 | Fix |
| 220 | CRIT | CRI Time Constant | 0-3 | 1 | 1 | Fix |
| 221 | CSB1 | Sync Slice Bias 1 | 0-3 | 3 | 3 | Fix |
| 222 | CSB2 | Sync Slice Bias 2 | 0-7 | 4 | 4 | Fix |
| 223 | CREP | CRI Signal End Position | 0-256 | 142 | 142 | Fix |
| 224 | CDSD | Data Start Delay | 0-31 | 8 | 8 | Fix |
| 225 | CCDS | Caption Data Threshold | 0-31 | 9 | 9 | Fix |
| 226 | CHMK | p8_hmask | 0- 63 | 42 | 42 | Fix |
| 227 | CHSY | p8_hsyc | 0-255 | 136 | 136 | Fix |
| **OP CXP858** | | | | | | |
| 228 | DISP | OSD Position | 0-63 | 1 | 13 | (Touch Up) |
| 229 | PDPS | PIP Display Position Start | 0-63 | 1 | 35 | (Touch Up) |
| 230 | PDP0 | PIP Display Position 0 | 0-3 | 1 | 1 | (Touch Up) |
| 231 | PDP1 | PIP Display Position 1 | 0-7 | 4 | 4 | (Touch Up) |
| 232 | PDP2 | PIP Display Position 2 | 0-7 | 4 | 3 | (Touch Up) |
| **OP CXA2025Color** | | | | | | |
| 233 | KILS | Color Killer SW | 0, 1 | 1 | 1 | Fix |
| **ID MAP** | | | | | | |
| 234 | ID-0 | ID-0 (Language: 89/25/9) | 0-255 | 89 | See ID Map | Fix by Model |
| 235 | ID-1 | ID-1 | 0-255 | 47 | See ID Map | Fix |
| 236 | ID-2 | ID-2 (Audio Effect) | 0-255 | 63 | See ID Map | Fix by Model |
| 237 | ID-3 | ID-3 ((Front Control: 0/64) | 0-255 | 0 | See ID Map | Fix by Model |
| 238 | ID-4 | ID-4 (Auto Shut Off:139/171) | 0-255 | 139 | See ID Map | Fix by Model |
| 239 | ID-5 | ID-5 | 0-255 | 173 | See ID Map | Fix |
| 240 | ID-6 | ID-6 (PinP/P&P) | 0-255 | 6 | See ID Map | Fix by Model |
| 241 | ID-7 | ID-7 | 0-255 | 0 | See ID Map | Fix |

SERVICE IDO 25

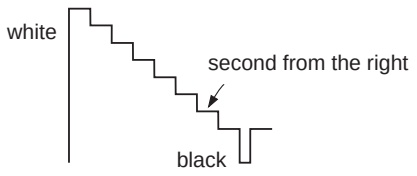
Note: Items 1-241 show adjustment order

## (5) Feature ID Map

| | KV- | DESTINATION | ID-0 | ID-1 | ID-2 | ID-3 | ID-4 | ID-5 | ID-6 | ID-7 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32FV1 | US | 89 | 63 | 47 | 0 | 139 | 173 | 6 | 0 |
| 2 | 32FV1 | CND | 89 | 63 | 47 | 0 | 139 | 173 | 6 | 0 |
| 3 | 34FVL1 | E | 25 | 63 | 47 | 64 | 171 | 173 | 6 | 0 |
| 4 | 36FV1 | US | 89 | 63 | 47 | 0 | 139 | 173 | 6 | 0 |
| 5 | 36FV1 | CND | 89 | 63 | 47 | 0 | 139 | 173 | 6 | 0 |

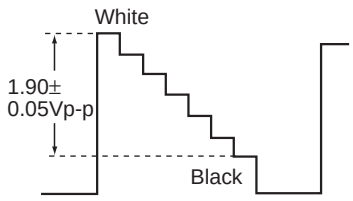
### SUB BRIGHT ADJUSTMENT (SBRT)

1. Set to Service adjustment Mode.
2. Input a gray scale pattern signal.
3. Set the PICTURE to minimum, and BRIGHT to normal.
4. Select SBRT with [1] and [4] .
5. Adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is faintly visible.
6. Write into the memory by pressing [MUTING] then [ENTER].



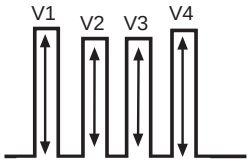

### SUB CONTRAST ADJUSTMENT (SCON)

1. Input a 75% color-bar signal.
2. Set to VIDEO mode = STANDARD, COLOR = minimum, PICTURE = 100%.
   GON = 0 (OFF), BON = 0 (OFF).
3. Set to Service adjustment Mode and Connect an oscilloscope pin ① of CN351 on A Board.
4. Select SCON with [1] and [4] .
5. Adjust with [3] and [6] for the 1.90 ± 0.05Vp-p of level.
6. Write into the memory by [MUTING] then [ENTER].




### SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

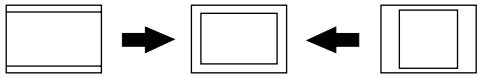
1. Input a color bar signal.
2. Set to Service adjustment Mode and set to
   VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%.
3. Connect an oscilloscope to CN351 Pin ③ of A Board.
4. Select SHUE and SCOL with [1] and [4] .
5. Adjust with [3] and [6] for the V1 = V4 (SCOL) and V2 = V3 (SHUE).
6. Write SHUE data 1 step down and SCOL data 2 steps up.
7. Write into the memory by pressing [MUTING] then [ENTER].




### H. SIZE ADJUSTMENT (HSIZ)

1. Input a monoscope signal.
2. Set to Service adjustment Mode.
3. Select HSIZ with [1] and [4] .
4. Adjust with [3] and [6] for the best Horizontal size.
5. Write into the memory by pressing [MUTING] then [ENTER].

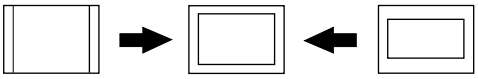
H. SIZE



### V. SIZE ADJUSTMENT ( VSIZ)

1. Input a monoscope signal.
2. Set to Service adjustment mode.
3. Select VSIZ with 1 and 4 .
4. Adjust with 3 and 6 for the best vertical size.
5. Write into the memory by pressing MUTING then ENTER.

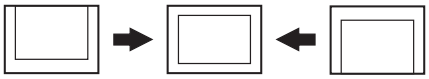
V. SIZE



### V. POSITION ADJUSTMENT (VPOS)

1.Input a monoscope signal.
2.Set to Service adjustment Mode.
3.Select VPOS with 1 and 4 .
4.Adjust with 3 and 6 for the best vertical center.
5.Write into the memory by pressing MUTING then ENTER.

V. POSITION

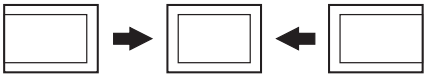


### H. POSITION ADJUSTMENT (HPOS)

Perform this adjustment after H. FREQUENCY ADJ. (HFRE).

1. Input a monoscope signal.
2. Set the Service adjustment Mode.
3. Select HPOS with 1 and 4 .
4. Adjust with 3 and 6 for the best horizontal center.
5. Write into the memory by pressing MUTING then ENTER.

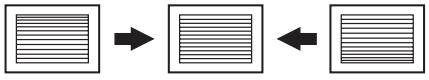
H. POSITION



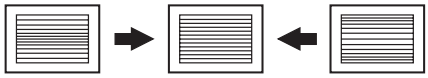
### V LINEARITY (VLIN), V CORRECTION (VSCO), PIN AMP (PAMP) AND PIN PHASE (PPHA) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, and PPHA with 1 and 4.
4. Adjust with 3 and 6 for the best picture.
5. Write the memory by Pressing MUTING then ENTER.

V LINEARITY(VLIN)

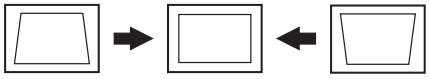


VS CORRECTION (VSCO)



PIN AMP (PAMP)

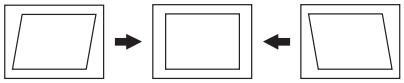
PIN PHASE (PPHA)



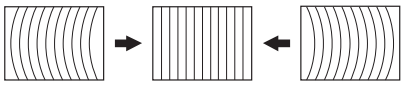
### V ANGLE (VANG), V BOW (VBOW), UPPER PIN (UPIN) AND LOW PIN (LPIN) ADJUSTMENTS

1. Input a cross hatch signal.
2. Set to Service adjustment Mode.
3. Select VVANG, VBOW, UPIN, and LPIN with 1 and 4 .
4. Adjust with 3 and 6 for the best picture.
5. Write the memory by Pressing MUTING then ENTER.

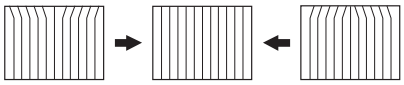
V ANGLE (VANG)



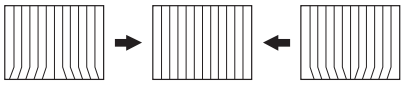
V BOW (VBOW)



UPPER PIN (UPIN)



LOW PIN (LPIN)



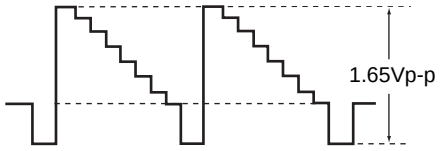
## A BOARD

### Y/B–Y/R–Y LEVEL ADJUSTMENT

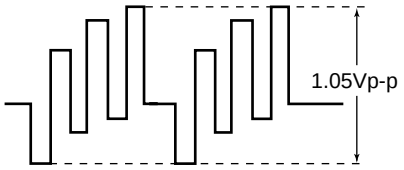
1. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%
2. Set a select Video 4 (DVD) Mode.
3. Input a 75% color bar signal.

4. Connect an oscilloscope to CN351 pin ③ on A board.
5. Set to Service Mode and select 2COL and 2HUE with 1 and 4.
6. Adjust with 3 and 6 for 2COL and 2HUE so that even flat signal.
7. After adjust write 2HUE data 4 steps down.
8. Write into the memory by pressing MUTING then ENTER .

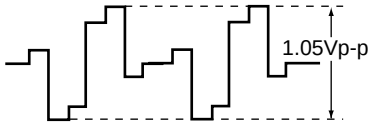
(75 ohms open level)
Y LEVEL (INPUT)




B-Y LEVEL (INPUT)

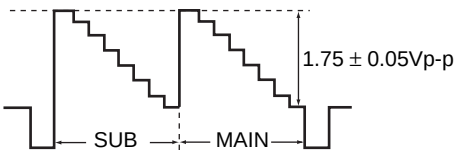



R-Y LEVEL (INPUT)



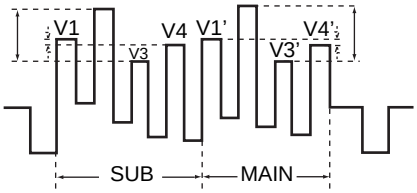

## P&P SUB CONTRAST ADJUSTMENT (MSCO, ISCO)

1. Input a 75% color-bar signal.
2. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = minimum
   GON = 0 (OFF), BON = 0(OFF),
   TRINITONE = medium.
3. Set P&P mode.
4. Connect an oscilloscope to CN1103 pin ④ of A board and GND.
5. Set to Service Mode and select MSCO (main window) and ISCO (sub window) with 1 and 4.
6. Adjust with 3 and 6 for the 1.75 ± 0.05Vp-p of level.
7. Write into the memory by pressing MUTING then ENTER.




## P&P SUB COLOR, SUB HUE ADJUSTMENT (MCOL, MSHU, ICOL, ISHU)

1. Input a 75% Color-bar signal.
2. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%,
   TRITONE = medium.
3. Set P&P mode.
4. Connect an oscilloscope to CN1103 pin ⑤ of A board and GND.
5. Set to Service Mode and select MCOL , MSHU (main window) and ICOL, ISHU (sub window) with 1 and 4.
6. Adjust with 3 and 6.
7. After adjust write MSHU and ISHU data 1 step down.
8. Write into the memory by pressing MUTING then ENTER .



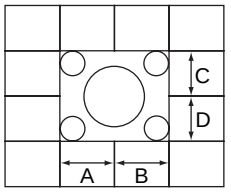

*SUB COLOR*
V1–V4= ±0.1V
V1'–V4'= ±0.1V

*SUB HUE*
V3–V2= ±0.1V ⟶ 1 STEP DOWN
V3'–V2'= ±0.1V ⟶1 STEP DOWN

## P&P ACQUISITION ADJUSTMENT (MAHP, MAVP)

1. Input a Monoscope signal.
2. Set PICTURE = 100%.
3. Set P&P mode and set CHANNEL INDEX mode.
4. Set to Service Mode and select MAHP and MAVP with 1 and 4.
5. Adjust with 3 and 6 for the best center (main window).
6. Write the memory by pressing MUTING then ENTER .

NEED TO ADJUST AFTER
GEOMETRIC ADJUST

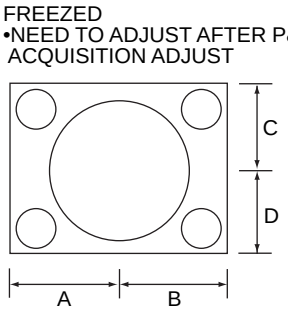



A–B = ±0.2 sg
C–D = ±0.2 sg

## BACKGROUND POSITION ADJUSTMENT (BGHP, BGVP)

NOTE: Prior to this adjustment, the P&P ACQUISITION ADJUSTMENT must be performed (see previous page).

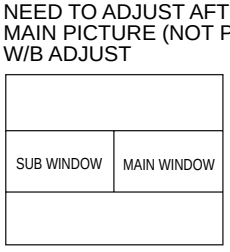
1. Input a monoscope signal.
2. Set VIDEO mode = STANDARD.
3. Freeze a main picture.
4. Set to Service Mode and select BGHP (pp), BGVP (pp) with 1 and 4.
5. Adjust with 3 and 6 for the best center.
6. Write into the memory by pressing MUTING then ENTER.




A–B = ±0.2 sg
C–D = ±0.2 sg

## P&P WHITE BALANCE ADJUSTMENT (MUPE, MVPE, IUPE, IVPE)

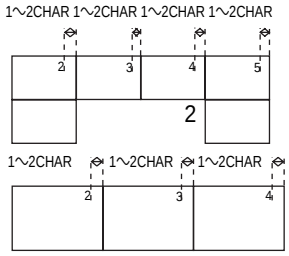
1. Input a 40 IRE white signal.
2. Set to VIDEO mode = STANDARD.
3. Set to P&P mode.
4. Set to Service Mode and select MUPE MVPE (main window), IUPE IVPE (sub window) with 1 and 4 .
5. Adjust with 3 and 6 for white balance.
6. Write into the memory by pressing MUTING then ENTER .




*9300 degrees K +8 MPCD

## P&P OSD ADJUSTMENT (PDPS)

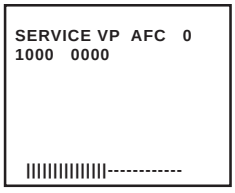
1. Input a monoscope signal.
2. Set to channel INDEX mode.
3. Adjust so right side edge of P&P OSD is 1 ~ 2 characters from border.
   ADJUST……PDPS (OP)
   If necessary, adjust PDP 0
   PDP 1
   PDP 2
4. Push the P&P off.
5. Push the return key for favorite channel.
6. Confirm 1 ~ 2 characters distance.
7. Write the memory by pressing MUTING then ENTER .




⇔: CRT Usable Area.

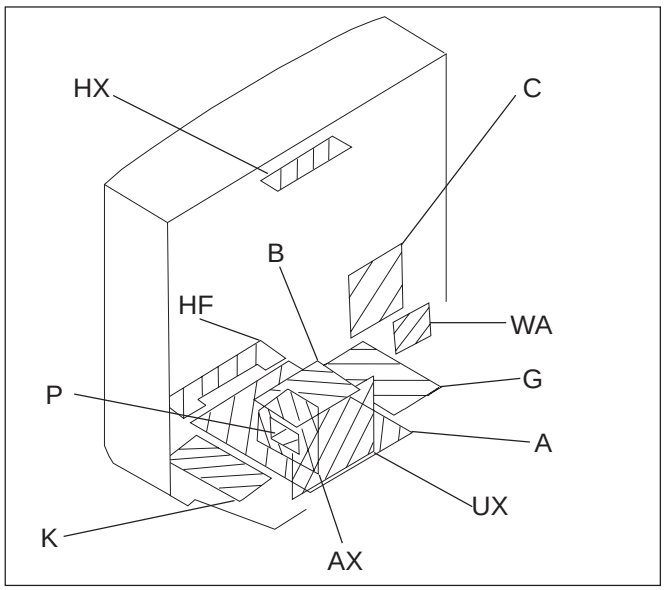
## OSD POSITION ADJUSTMENT (DISP)

1. Input a color bar signal.
2. Set to Service adjustment Mode.
3. Select DISP with 1 and 4.
4. Adjust with 3 and 6 for the bar center.
5. Write into the memory by pressing MUTING then ENTER .



# SECTION 6
# DIAGRAMS

## 6-1. CIRCUIT BOARDS LOCATION




## 6-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
  KΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : 1/4 W

- 1/4 W in resistance, 1/10 W and 1/8 W in chip resistance.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved. (Refer to R530 and R531 adjustment on Page 16.)
- When replacing the part in below table, be sure to perform the related adjustment.
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are DC with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.

| Part replaced( ◪ ) | Adjustment( ⋈ ) |
|---|---|
| IC351,IC501,D519,D520,D521<br>C531,C532,R387,R529,R530,R531,<br>R532,R533,R550,T503.....A BOARD<br>IC643,R661.....G BOARD | R530,R531 |

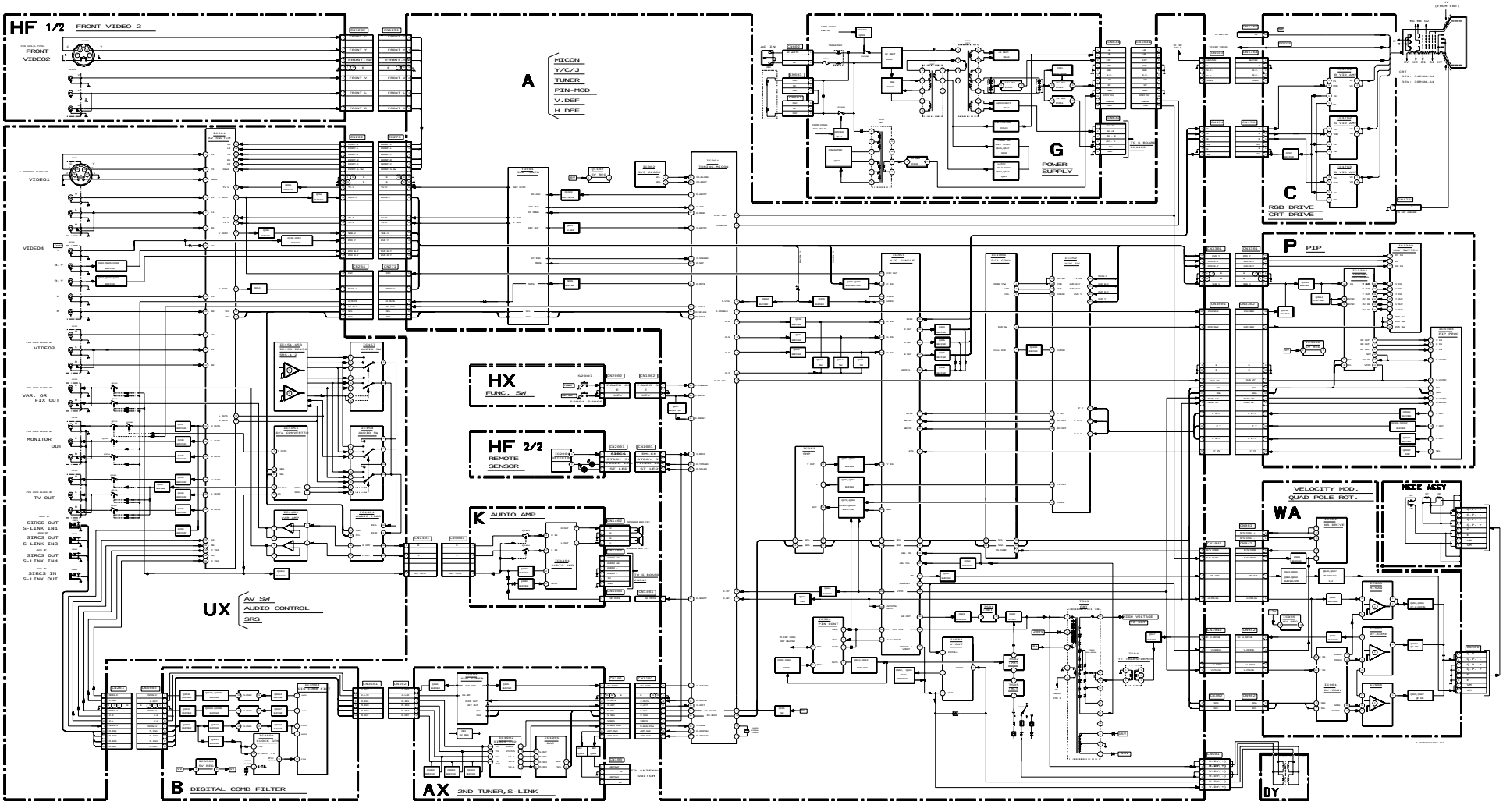
- All voltages are in V.
  S : Measurement impossibillity.
- : B+line.
- : B-line.
  (Actual measured value may be different).
- : signal path. (RF)
- Circled numbers are waveform references.

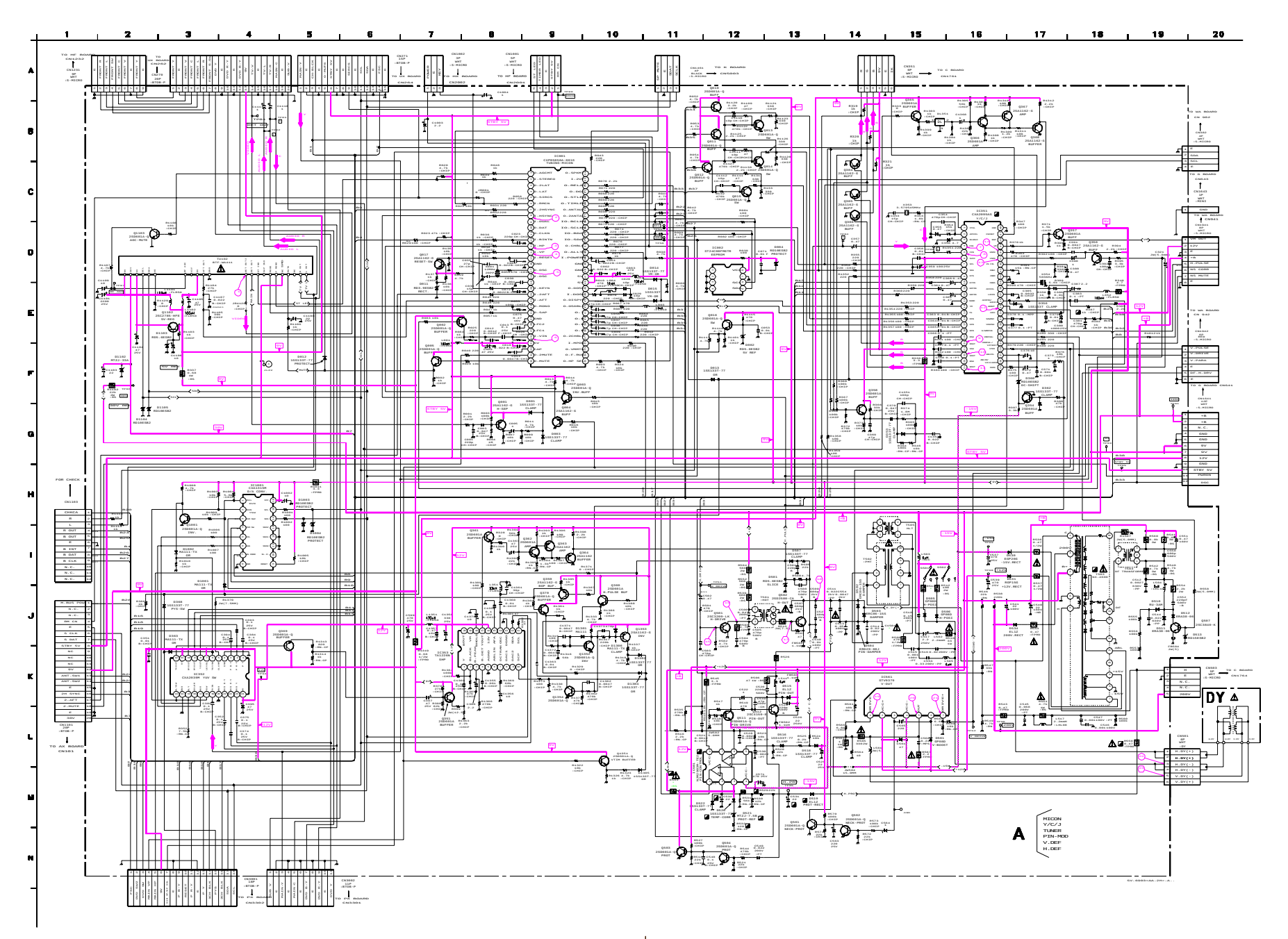
Reference information

| | | |
|---|---|---|
| RESISTOR | : RN | METAL FILM |
| | : RC | SOLID |
| | : FPRD | NONFLAMMABLE CARBON |
| | : FUSE | NONFLAMMABLE FUSIBLE |
| | : RW | NONFLAMMABLE WIREWOUND |
| | : RS | NONFLAMMABLE METAL OXIDE |
| | : RB | NONFLAMMABLE CEMENT |
| | : ※ | ADJUSTMENT RESISTOR |
| COIL | : LF-8L | MICRO INDUCTOR |
| CAPACITOR | : TA | TANTALUM |
| | : PS | STYROL |
| | : PP | POLYPROPYLENE |
| | : PT | MYLAR |
| | : MPS | METALIZED POLYESTER |
| | : MPP | METALIZED POLYPROPYLENE |
| | : ALB | BIPOLAR |
| | : ALT | HIGH TEMPERATURE |

The symbol display is on the component side.
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.
The symbol indicate fast operating fuse.
Replace only with fuse of same rating as marked.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.
Le symbole indique une fusible a action rapide. Doit etre remplacee par une fusible de meme yaleur, comme maque.


HF 1/2
FRONT VIDEO 2
FRONT VIDEO2
A
MICON
Y/C/J
TUNER
PIN-MOD
V.DEF
H.DEF
G
POWER SUPPLY
C
RGB DRIVE
CRT DRIVE
VIDEO1
VIDEO4
VIDEO3
VAR. OR FIX OUT
MONITOR OUT
TV OUT
SIRCS OUT S-LINK IN1
SIRCS OUT S-LINK IN3
SIRCS OUT S-LINK IN4
SIRCS IN S-LINK OUT
HX
FUNC. SW
HF 2/2
REMOTE SENSOR
K
AUDIO AMP
UX
AV SW
AUDIO CONTROL
SRS
P
PIP
VELOCITY MOD.
QUAD POLE ROT.
WA
MICE ASSY
B
DIGITAL COMB FILTER
AX
2ND TUNER, S-LINK
DY


A
MICON
Y/C/J
TUNER
P2N-R0D
V.DEF
H.DEF
DY

## A BOARD IC VOLTAGE LIST

| IC001 | |
|---|---|
| pin | volt |
| 1 | 0.0 |
| 2 | 4.8 |
| 3 | NC |
| 4 | NC |
| 5 | NC |
| 6 | 4.8 |
| 7 | 0.0 |
| 8 | 0.0 |
| 9 | NC |
| 10 | NC |
| 11 | NC |
| 12 | 4.8 |
| 13 | 3.9 |
| 14 | 1.1 |
| 15 | 4.8 |
| 16 | GND |
| 17 | 2.3 |
| 18 | 2.1 |
| 19 | 0.0 |
| 20 | 4.8 |
| 21 | 2.3 |
| 22 | 2.0 |
| 23 | 0.0 |
| 24 | 0.0 |
| 25 | GND |
| 26 | 1.6 |
| 27 | 2.6 |
| 28 | 2.2 |
| 29 | 4.0 |
| 30 | 0.0 |
| 31 | 0.0 |
| 32 | 0.0 |
| 33 | 4.8 |
| 34 | NC |
| 35 | NC |
| 36 | 0.1 |
| 37 | 0.0 |
| 38 | 0.0 |
| 39 | 0.0 |
| 40 | 0.0 |
| 41 | 0.0 |
| 42 | 0.0 |
| 43 | 0.0 |
| 44 | 2.7 |
| 45 | 2.7 |
| 46 | 4.8 |
| 47 | 4.8 |
| 48 | GND |
| 49 | GND |
| 50 | 4.8 |
| 51 | 0.0 |
| 52 | 0.0 |
| 53 | 4.0 |
| 54 | 4.0 |
| 55 | 4.0 |
| 56 | 4.0 |
| 57 | 4.8 |
| 58 | 0.0 |
| 59 | 3.5 |
| 60 | 3.5 |
| 61 | 0.0 |
| 62 | 4.6 |
| 63 | NC |
| 64 | 4.6 |

| IC002 | |
|---|---|
| pin | volt |
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | GND |
| 5 | 4.0 |
| 6 | 4.0 |
| 7 | GND |
| 8 | 4.8 |

| IC351 | |
|---|---|
| pin | volt |
| 1 | 2.0 |
| 2 | 5.7 |
| 3 | 4.1 |
| 4 | 4.7 |
| 5 | 4.0 |
| 6 | 9.1 |
| 7 | 4.0 |
| 8 | 4.0 |
| 9 | 0.2 |
| 10 | 6.6 |
| 11 | 6.3 |
| 12 | 6.3 |
| 13 | GND |
| 14 | 0.0 |
| 15 | 0.0 |
| 16 | 5.2 |
| 17 | 5.2 |
| 18 | 5.2 |
| 19 | 4.7 |
| 20 | 1.7 |
| 21 | 4.7 |
| 22 | 1.7 |
| 23 | 4.9 |
| 24 | 1.6 |
| 25 | 3.5 |
| 26 | 3.7 |
| 27 | 9.0 |
| 28 | 0.7 |
| 29 | 3.1 |
| 30 | 3.1 |
| 31 | 3.8 |
| 32 | 4.4 |
| 33 | 4.8 |
| 34 | 9.2 |
| 35 | 3.6 |
| 36 | 3.5 |
| 37 | 4.3 |
| 38 | 4.4 |
| 39 | 2.5 |
| 40 | GND |
| 41 | 2.7 |
| 42 | 2.7 |
| 43 | 4.0 |
| 44 | 3.2 |
| 45 | 6.2 |
| 46 | 0.8 |
| 47 | 6.1 |
| 48 | GND |

| IC352 | |
|---|---|
| pin | volt |
| 1 | 6.0 |
| 2 | 6.0 |
| 3 | 6.0 |
| 4 | GND |
| 5 | 1.9 |
| 6 | 1.5 |
| 7 | 9.3 |
| 8 | 3.8 |
| 9 | 4.1 |
| 10 | 3.8 |
| 11 | 9.3 |
| 12 | 3.6 |
| 13 | 0.1 |
| 14 | GND |
| 15 | 2.5 |
| 16 | 5.6 |
| 17 | 4.6 |
| 18 | 0.1 |
| 19 | 6.3 |
| 20 | GND |
| 21 | 5.9 |
| 22 | 5.9 |
| 23 | 5.9 |
| 24 | 9.3 |

| IC353 | |
|---|---|
| pin | volt |
| 1 | 4.5 |
| 2 | 3.7 |
| 3 | 3.8 |
| 4 | 4.5 |
| 5 | GND |
| 6 | 2.8 |
| 7 | 4.5 |
| 8 | NC |
| 9 | NC |
| 10 | 0.9 |
| 11 | 4.0 |
| 12 | 4.0 |
| 13 | GND |
| 14 | 11.3 |
| 15 | 5.5 |
| 16 | 11.6 |
| 17 | 7.6 |
| 18 | 0.5 |
| 19 | 3.5 |
| 20 | 1.0 |

| IC501 | |
|---|---|
| pin | volt |
| 1 | 3.5 |
| 2 | 1.2 |
| 3 | 8.4 |
| 4 | -14.3 |
| 5 | 2.3 |
| 6 | 3.0 |
| 7 | -14.5 |
| 8 | 14.5 |

| IC561 | |
|---|---|
| pin | volt |
| 1 | 1.2 |
| 2 | 14.5 |
| 3 | -12.7 |
| 4 | -14.3 |
| 5 | -0.1 |
| 6 | 14.7 |
| 7 | 1.2 |

| IC1001 | |
|---|---|
| pin | volt |
| 1 | 0.2 |
| 2 | 0.2 |
| 3 | 0.3 |
| 4 | 0.3 |
| 5 | 5.6 |
| 6 | 4.6 |
| 7 | 4.8 |
| 8 | GND |
| 9 | 9.4 |
| 10 | NC |
| 11 | GND |
| 12 | GND |
| 13 | GND |
| 14 | 4.0 |
| 15 | 4.0 |
| 16 | 9.4 |

All voltages are in V

## A BOARD TRANSISTOR VOLTAGE LIST

| | B | C | E |
|---|---|---|---|
| Q001 | 4.8 | 0.7 | 4.8 |
| Q002 | 4.8 | 9.5 | 4.2 |
| Q003 | 0.0 | 3.9 | GND |
| Q004 | 0.7 | GND | 1.2 |
| Q010 | 0.0 | 4.8 | 0.0 |
| Q011 | 0.0 | 9.5 | 0.0 |
| Q012 | 0.0 | 9.5 | 0.0 |
| Q013 | 0.0 | 0.0 | 0.0 |
| Q014 | 0.0 | 0.0 | GND |
| Q015 | 0.0 | 0.0 | GND |
| Q016 | 5.8 | 9.5 | 5.1 |
| Q017 | 4.2 | 4.8 | 4.8 |
| Q304 | 1.6 | GND | 2.3 |
| Q305 | 1.6 | GND | 2.3 |
| Q306 | 1.6 | GND | 2.2 |
| Q351 | 6.7 | 9.2 | 6.0 |
| Q354 | 0.4 | GND | -0.2 |
| Q356 | 5.1 | GND | 5.7 |
| Q357 | 3.7 | 9.5 | 3.1 |
| Q358 | 2.1 | 9.1 | 2.2 |
| Q359 | 1.2 | GND | 1.9 |
| Q360 | 0.1 | 11.6 | 0.7 |
| Q361 | 7.6 | 11.6 | 6.9 |
| Q362 | 3.2 | 10.8 | 2.6 |
| Q363 | 10.8 | 4.9 | 11.4 |
| Q364 | 5.0 | GND | 5.6 |
| Q365 | 5.0 | 9.2 | 4.4 |
| Q366 | 2.6 | 8.5 | 1.9 |
| Q367 | 8.5 | 3.4 | 9.1 |
| Q368 | 3.4 | GND | 4.0 |
| Q369 | 3.6 | 9.2 | 2.9 |
| Q370 | 1.9 | 11.6 | 1.4 |
| Q501 | -0.9 | 97.0 | GND |
| Q502 | -0.2 | 132.0 | GND |
| Q503 | 0.0 | 8.4 | GND |
| Q504 | -1.0 | 0.0 | GND |
| Q507 | 0.7 | 0.0 | GND |
| Q511 | -14.0 | -11.0 | -14.0 |
| Q512 | -14.5 | 19.7 | -14.3 |
| Q561 | 0.0 | 3.0 | GND |
| Q562 | -0.1 | 0.0 | GND |
| Q1001 | 0.2 | 2.1 | GND |
| Q1102 | 5.7 | 8.9 | 5.1 |
| Q1103 | 0.0 | 5.9 | GND |
| Q1351 | 0.6 | 9.2 | 0.4 |
| Q1352 | -1.1 | 10.3 | GND |
| Q1353 | 11.8 | 0.6 | 11.6 |
| Q1354 | -0.2 | 0.0 | GND |

All voltages are in V

A IC VOLTAGE

| | | |
|---|---|---|
| | | |
| | | |
| | | |

# A BOARD
# LOCATOR LIST

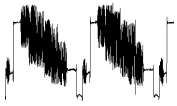
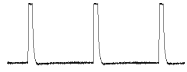
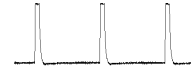
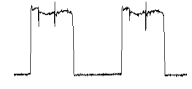
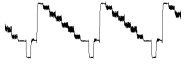
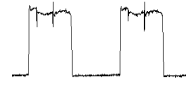
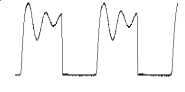
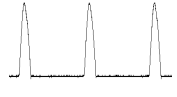
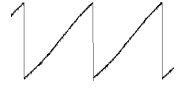
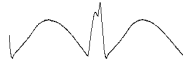
| DIODE | | IC353 | D-11 |
|---|---|---|---|
| D001 | B-5 | IC501 | G-2 |
| D002 | D-2 | IC561 | H-6 |
| D003 | A-5 | IC1001 | D-9 |
| D004 | C-2 | **TRANSISTOR** | |
| D011 | A-5 | Q001 | B-5 |
| D012 | C-1 | Q002 | C-4 |
| D013 | C-5 | Q003 | H-1 |
| D014 | D-2 | Q004 | H-1 |
| D015 | C-3 | Q005 | B-5 |
| D353 | D-7 | Q010 | D-4 |
| D356 | E-3 | Q011 | D-4 |
| D360 | E-7 | Q012 | D-3 |
| D362 | E-7 | Q013 | E-3 |
| D368 | C-7 | Q014 | E-3 |
| D501 | H-2 | Q015 | E-3 |
| D502 | I-8 | Q016 | D-2 |
| D503 | I-8 | Q017 | A-5 |
| D504 | J-7 | Q304 | C-7 |
| D505 | I-6 | Q305 | C-7 |
| D506 | I-5 | Q306 | C-7 |
| D507 | H-2 | Q351 | C-11 |
| D510 | F-8 | Q354 | E-7 |
| D511 | F-8 | Q356 | C-4 |
| D512 | F-9 | Q357 | E-4 |
| D513 | F-9 | Q358 | E-7 |
| D515 | G-4 | Q359 | E-13 |
| D516 | H-2 | Q360 | E-13 |
| D518 | H-2 | Q363 | E-12 |
| D519 | G-9 | Q364 | E-12 |
| D520 | F-2 | Q365 | C-12 |
| D521 | F-2 | Q366 | B-10 |
| D522 | G-2 | Q367 | B-10 |
| D530 | G-8 | Q368 | C-9 |
| D531 | G-9 | Q369 | D-10 |
| D534 | G-8 | Q370 | E-12 |
| D561 | H-7 | Q501 | I-2 |
| D1001 | C-6 | Q502 | J-9 |
| D1002 | C-7 | Q503 | G-2 |
| D1003 | E-10 | Q504 | G-3 |
| D1004 | A-7 | Q507 | F-9 |
| D1005 | A-7 | Q511 | H-2 |
| D1301 | D-13 | Q512 | F-3 |
| D1302 | D-12 | Q561 | G-5 |
| D1304 | D-12 | Q562 | G-5 |
| D1305 | D-12 | Q1001 | C-6 |
| D1306 | D-13 | Q1102 | B-12 |
| **IC** | | Q1103 | A-10 |
| IC001 | B-3 | Q1351 | C-10 |
| IC002 | C-3 | Q1352 | E-13 |
| IC351 | D-4 | Q1353 | D-13 |
| IC352 | D-10 | Q1354 | D-12 |

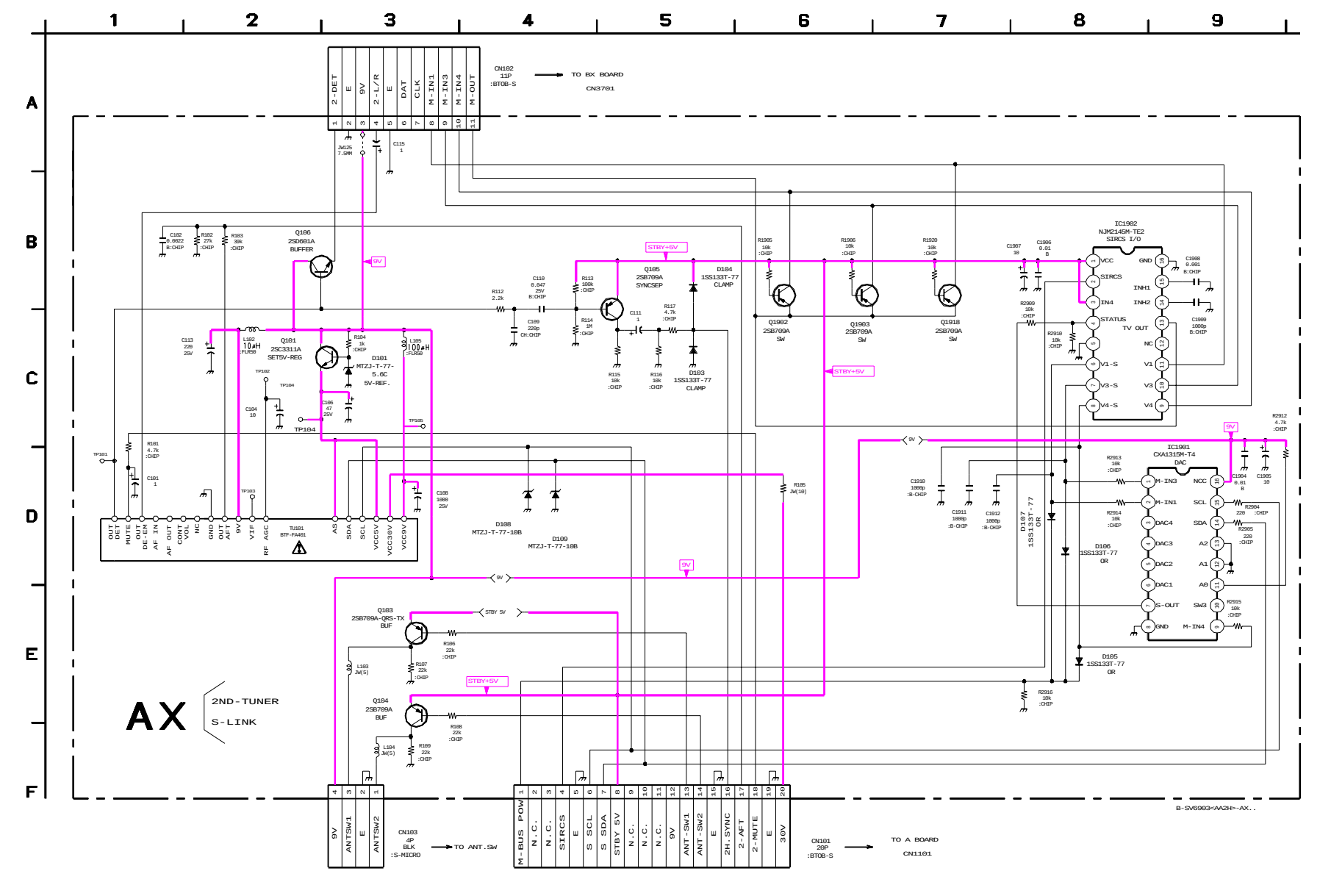
# A BOARD (*) MARK LIST

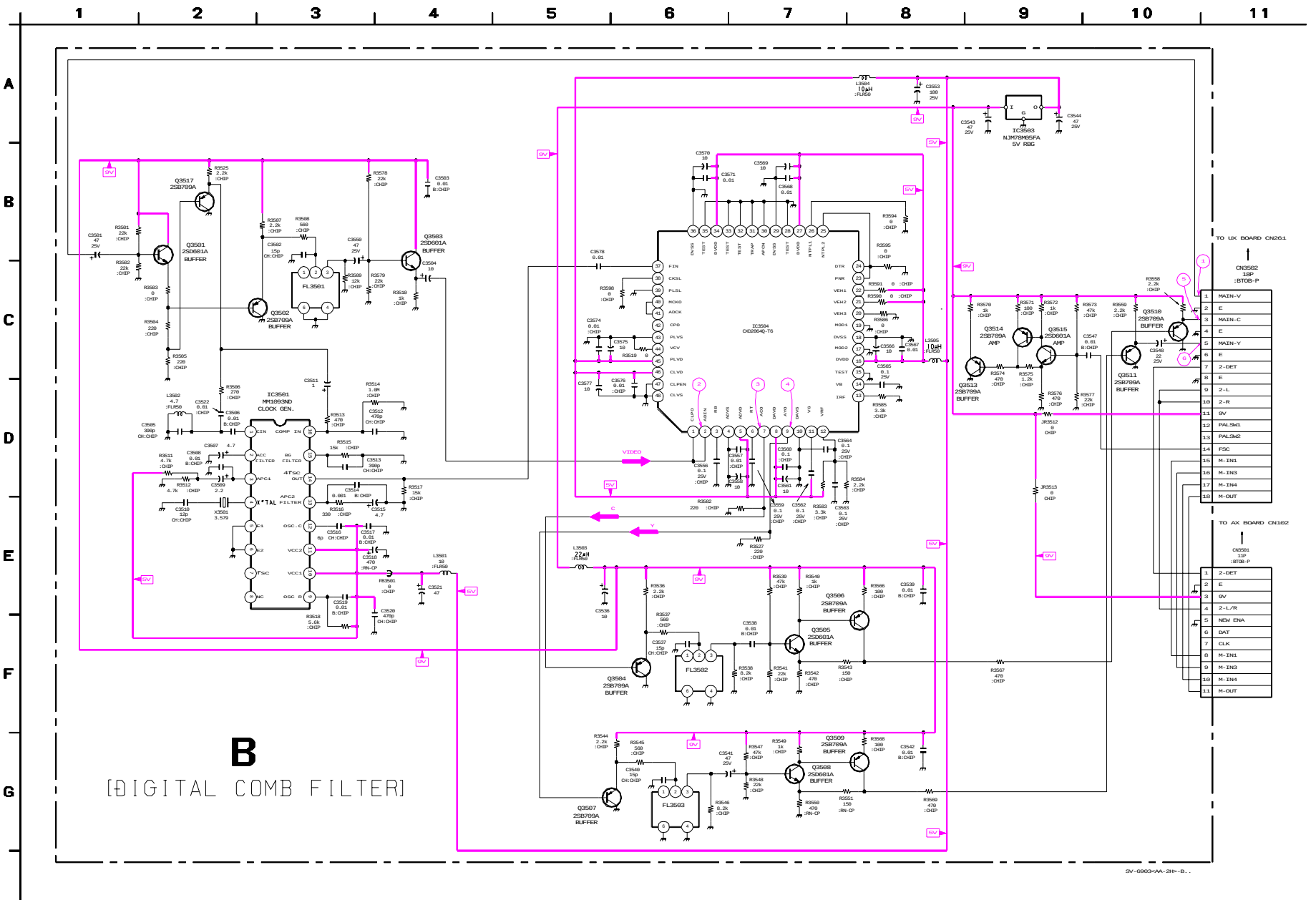
| | KV-32FV1<br>KV-34FVL1 | KV-36FV1 |
|---|---|---|
| C1501 | # | .1MF 200V |
| R511 | 68 2W | 100 2W |
| R526 | # | 10K 2W |
| R533 | 47K 1W | 33K 1W |

# = Not Mounted

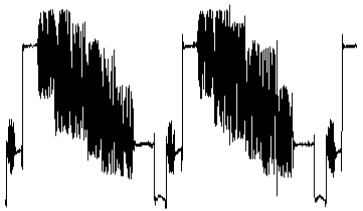
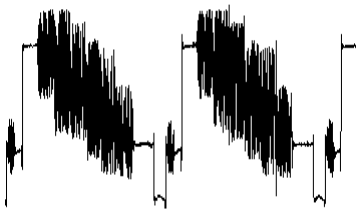
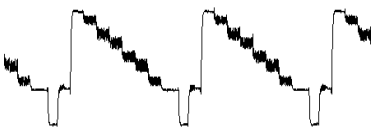
- A BOARD WAVEFORMS

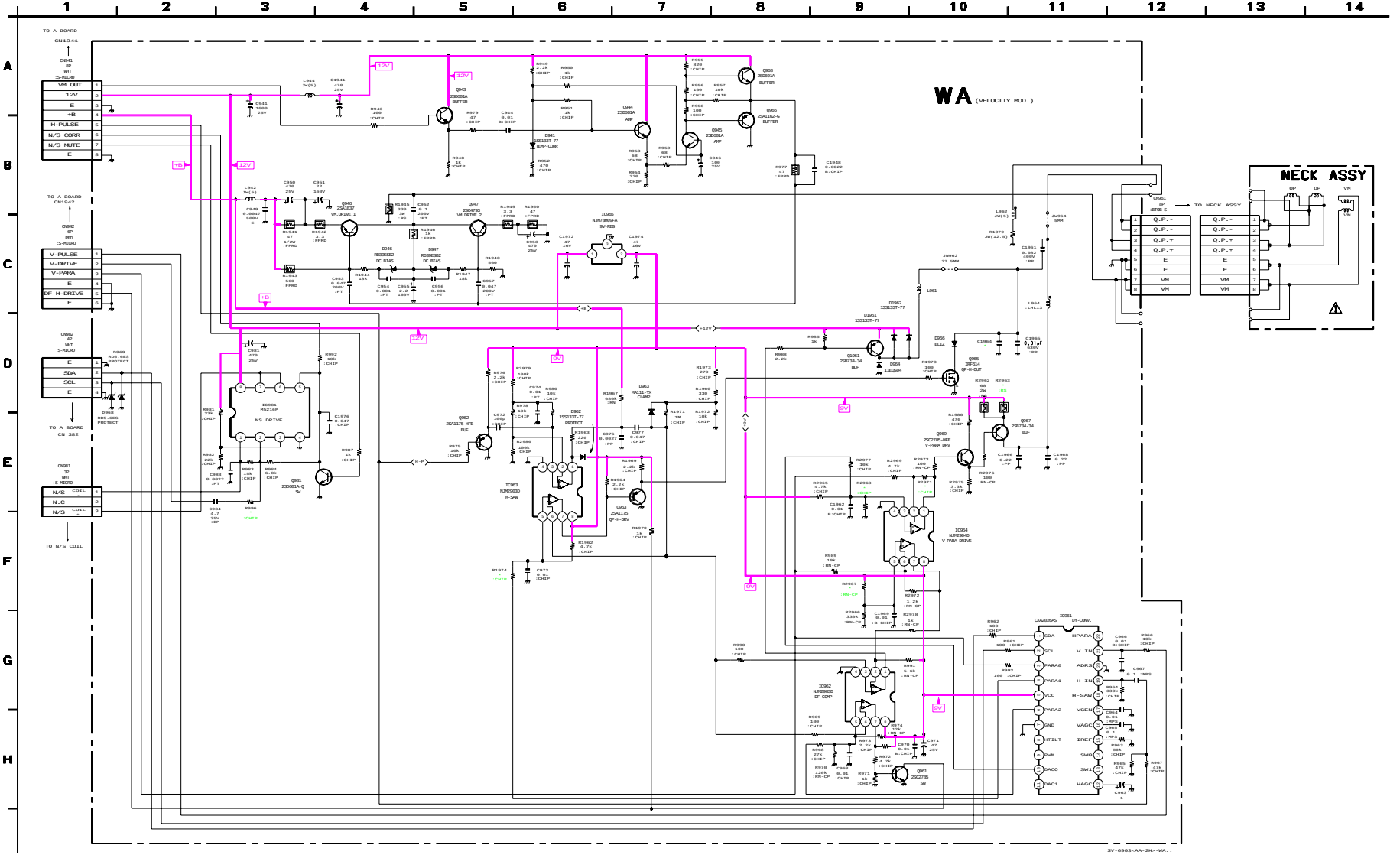
| | | | |
|---|---|---|---|
| 1  1.9 Vp-p (H) | 2  4.9 Vp-p (H) | 3 5.2 Vp-p (H) | 4  4.3 Vp-p (8MHz) |
| 5 3.4 Vp-p (H) | 6 1.7 Vp-p (H) | 7 2.2 Vp-p (H) | 8 1.1 Vp-p (V) |
| 9 4.0 Vp-p (H) | 10 3.4 Vp-p (H) | 11 3.8 Vp-p (H) | 12  6.8 Vp-p (V) |
| 13  1.7 Vp-p (H) | 14 1.7 Vp-p (H). | 15  3.4 Vp-p (H) | 16  204.7 Vp-p (H) |
| 17 55.6 Vp-p (H) | 18  1.08 KVp-p (H) | 19  1.0 Vp-p (V) | 20 56.5 Vp-p (V) |
| 21 0.7 Vp-p (V) | 22  250.0 Vp-p (H) | 23 2.2 Vp-p (V) | |


AX
2ND-TUNER
S-LINK
CN102 11P :BT0B-S
TO BX BOARD CN3701
2-DET
E
9V
2-L/R
E
DAT
CLK
M-IN1
M-IN3
M-IN4
M-OUT
Q106 2SD601A BUFFER
Q101 2SC3311A SETSV-REG
D101 MTZJ-T-77-5.6C 5V-REF.
TP104
Q105 2SB709A SYNCSEP
D104 1SS133T-77 CLAMP
D103 1SS133T-77 CLAMP
Q1902 2SB709A Sw
Q1903 2SB709A Sw
Q1918 2SB709A Sw
IC1902 NJM2145M-TE2 SIRCS I/O
VCC
GND
SIRCS
INH1
IN4
INH2
STATUS
TV OUT
NC
V1-S
V1
V3-S
V3
V4-S
V4
IC1901 CXA1315M-T4 DAC
M-IN3
M-IN1
DAC4
DAC3
DAC2
DAC1
S-OUT
GND
NCC
SCL
SDA
A2
A1
A0
SW3
M-IN4
D106 1SS133T-77 OR
D107 1SS133T-77 OR
D105 1SS133T-77 OR
D108 MTZJ-T-77-10B
D109 MTZJ-T-77-10B
Q103 2SB709A-QRS-TX BUF
Q104 2SB709A BUF
TU101 BTF-FA401
OUT DET
MUTE
OUT DE-EM
AF IN
AF OUT
CONT VOL
NC
GND
OUT AFT
9V
VIF
RF AGC
AS
SDA
SCL
VCC5V
VCC30V
VCC9V
STBY+5V
STBY 5V
9V
ANTSW1
E
ANTSW2
CN103 4P BLK :S-MICRO
TO ANT.SW
M-BUS POW
N.C.
N.C.
SIRCS
E
S SCL
S SDA
STBY 5V
N.C.
N.C.
N.C.
9V
ANT-SW1
ANT-SW2
E
2H-SYNC
2-AFT
2-MUTE
E
30V
CN101 20P :BT0B-S
TO A BOARD CN1101
B-SV6903<AA2H--AX..


B
[DIGITAL COMB FILTER]
IC3501
MM1093ND
CLOCK GEN.
IC3504
CXD2964Q-T6
IC3503
NJM78M05FA
5V REG
Q3501
2SD601A
BUFFER
Q3502
2SB709A
BUFFER
Q3503
2SD601A
BUFFER
Q3504
2SB709A
BUFFER
Q3505
2SD601A
BUFFER
Q3506
2SB709A
BUFFER
Q3507
2SB709A
BUFFER
Q3508
2SD601A
BUFFER
Q3509
2SB709A
BUFFER
Q3510
2SB709A
BUFFER
Q3511
2SB709A
BUFFER
Q3512
2SB709A
AMP
Q3513
2SB709A
BUFFER
Q3514
2SB709A
AMP
Q3515
2SD601A
AMP
FL3501
FL3502
FL3503
X3501
3.579
VIDEO
TO LX BOARD CN261
CN3502
18P
:BTOB-P
TO AX BOARD CN102
CN3501
11P
:BTOB-P
MAIN-V
E
MAIN-C
E
MAIN-Y
E
2-DET
E
2-L
2-R
9V
PALSW1
PALSW2
FSC
M-IN1
M-IN3
M-IN4
M-OUT
2-DET
E
9V
2-L/R
NEW ENA
DAT
CLK
M-IN1
M-IN3
M-IN4
M-OUT
SV-6903-AA-2H-B..

- B BOARD WAVEFORMS

| | | |
|---|---|---|
| 1  2.1 Vp-p (H) | 2  1.8 Vp-p (H) | 3 1.0 Vp-p (H) |
| 4 1.4 Vp-p (H) | 5 1.1 Vp-p (H) | 6  1.8 Vp-p (H) |


WA (VELOCITY MOD.)
NECK ASSY
TO A BOARD CN1941
TO A BOARD CN1942
TO A BOARD CN 382
TO N/S COIL
TO NECK ASSY
IC361 DY-CONV.
IC362 DF-CONV
IC363 H-SAW
IC364 V-PARA DRIVE
IC365 NJM78M05FA 5V-REG
IC981 M52189 NS DRIVE
SV-6903-AA-2H-WA..

## WA BOARD TRANSISTOR VOLTAGE LIST

| | B | C | E |
|---|---|---|---|
| Q943 | 3.1 | 11.6 | 2.4 |
| Q944 | 2.5 | 11.6 | 1.9 |
| Q945 | 2.5 | 8.1 | 1.9 |
| Q946 | 134.3 | 67.2 | 134.9 |
| Q947 | 0.9 | 67.2 | 0.4 |
| Q961 | 0.4 | 0.7 | GND |
| Q962 | 0.5 | GND | 1.1 |

| | B | C | E |
|---|---|---|---|
| Q963 | 6.1 | GND | 6.2 |
| Q966 | 8.1 | GND | 8.4 |
| Q967 | 6.1 | 6.0 | 6.8 |
| Q968 | 8.7 | 11.6 | 8.3 |
| Q969 | 5.5 | 11.3 | 6.0 |
| Q981 | 0.0 | 4.7 | GND |
| Q1961 | 0.0 | 0.0 | 11.6 |

All voltages are in V

## WA BOARD TRANSISTOR VOLTAGE LIST

| | G | S | D |
|---|---|---|---|
| Q965 | 0.7 | GND | 6.2 |

All voltages are in V

## WA BOARD IC VOLTAGE LIST

| IC961 | |
|---|---|
| pin | volt |
| 1 | 4.0 |
| 2 | 4.0 |
| 3 | 4.0 |
| 4 | 4.0 |
| 5 | 9.0 |
| 6 | 4.3 |
| 7 | GND |
| 8 | NC |
| 9 | NC |
| 10 | 7.7 |
| 11 | NC |
| 12 | 6.7 |
| 13 | NC |
| 14 | NC |
| 15 | 2.0 |
| 16 | 4.0 |
| 17 | 5.0 |
| 18 | NC |
| 19 | 3.5 |
| 20 | GND |
| 21 | 0.6 |
| 22 | NC |

| IC962 | |
|---|---|
| pin | volt |
| 1 | 0.0 |
| 2 | 0.9 |
| 3 | 0.9 |
| 4 | GND |
| 5 | 0.8 |
| 6 | 7.1 |
| 7 | 4.7 |
| 8 | 9.0 |

| IC963 | |
|---|---|
| pin | volt |
| 1 | 5.6 |
| 2 | 4.4 |
| 3 | 4.4 |
| 4 | GND |
| 5 | 5.0 |
| 6 | 5.0 |
| 7 | 5.0 |
| 8 | 9.0 |

| IC964 | |
|---|---|
| pin | volt |
| 1 | 5.6 |
| 2 | 4.5 |
| 3 | 4.5 |
| 4 | GND |
| 5 | 5.0 |
| 6 | 5.0 |
| 7 | 5.0 |
| 8 | 9.0 |

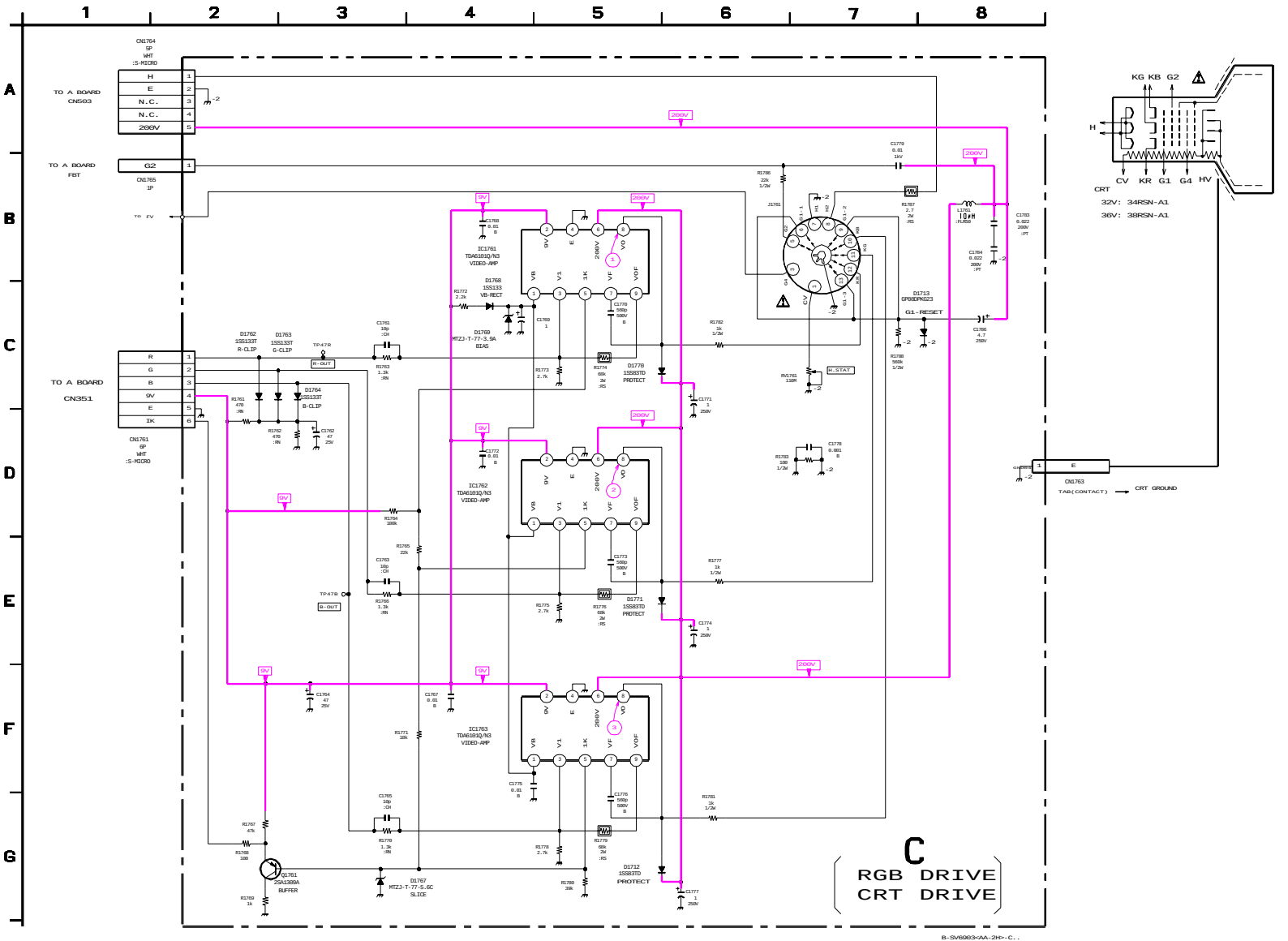
| IC965 | |
|---|---|
| pin | volt |
| IN | 11.6 |
| OUT | 9.1 |
| GND | GND |

| IC981 | |
|---|---|
| pin | volt |
| 1 | 4.7 |
| 2 | 4.7 |
| 3 | 4.7 |
| 4 | 0 |
| 5 | 4.7 |
| 6 | 4.7 |
| 7 | 4.7 |
| 8 | 11.6 |

All voltages are in V

# WA BOARD (*) MARK LIST

| | KV-32FV1<br>KV-34FVL1 | KV-36FV1 |
|---|---|---|
| R2967 | 240K 1/10W | 220K 1/10W |


C
RGB DRIVE
CRT DRIVE
TO A BOARD CN503
TO A BOARD FBT
TO A BOARD CN3351
CN1764 SP WHT :S-MICRO
CN1765 1P
CN1761 6P WHT :S-MICRO
CN1763 TAB(CONTACT)
CRT GROUND
KG KB G2
H
CV KR G1 G4 HV
CRT
32V: 34RSN-A1
36V: 38RSN-A1
200V
9V
IC1761 TDA6101Q/N3 VIDEO-AMP
IC1762 TDA6101Q/N3 VIDEO-AMP
IC1763 TDA6101Q/N3 VIDEO-AMP
D1762 1SS133T R-CLIP
D1763 1SS133T G-CLIP
D1764 1SS133T B-CLIP
D1768 1SS133 VB-RECT
D1769 MTZJ-T-77-3.9A BIAS
D1770 1SS83TD PROTECT
D1771 1SS83TD PROTECT
D1712 1SS83TD PROTECT
D1767 MTZJ-T-77-5.6C SLICE
D1713 GP08DPNG23
G1-RESET
Q1761 2SA1309A BUFFER
M.STAT
R-OUT
G-OUT
B-OUT
TP47R
TP47G
TP47B
B-SV6003-AA-2H-C..

## C BOARD TRANSISTOR VOLTAGE LIST

| | B | C | E |
|---|---|---|---|
| Q1761 | 4.1 | 0.1 | 3.4 |

All voltages are in V

## C BOARD IC VOLTAGE LIST

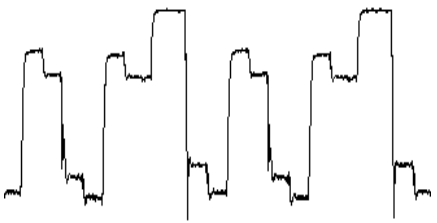
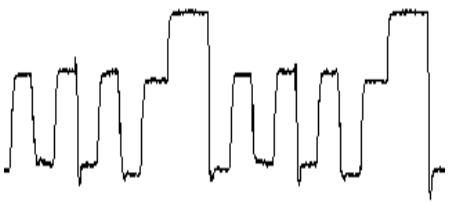
| IC1761 | |
|---|---|
| pin | volt |
| 1 | 3.4 |
| 2 | 9.1 |
| 3 | 3.3 |
| 4 | GND |
| 5 | 7.1 |
| 6 | 212.0 |
| 7 | 144.0 |
| 8 | 146.0 |
| 9 | 143.0 |

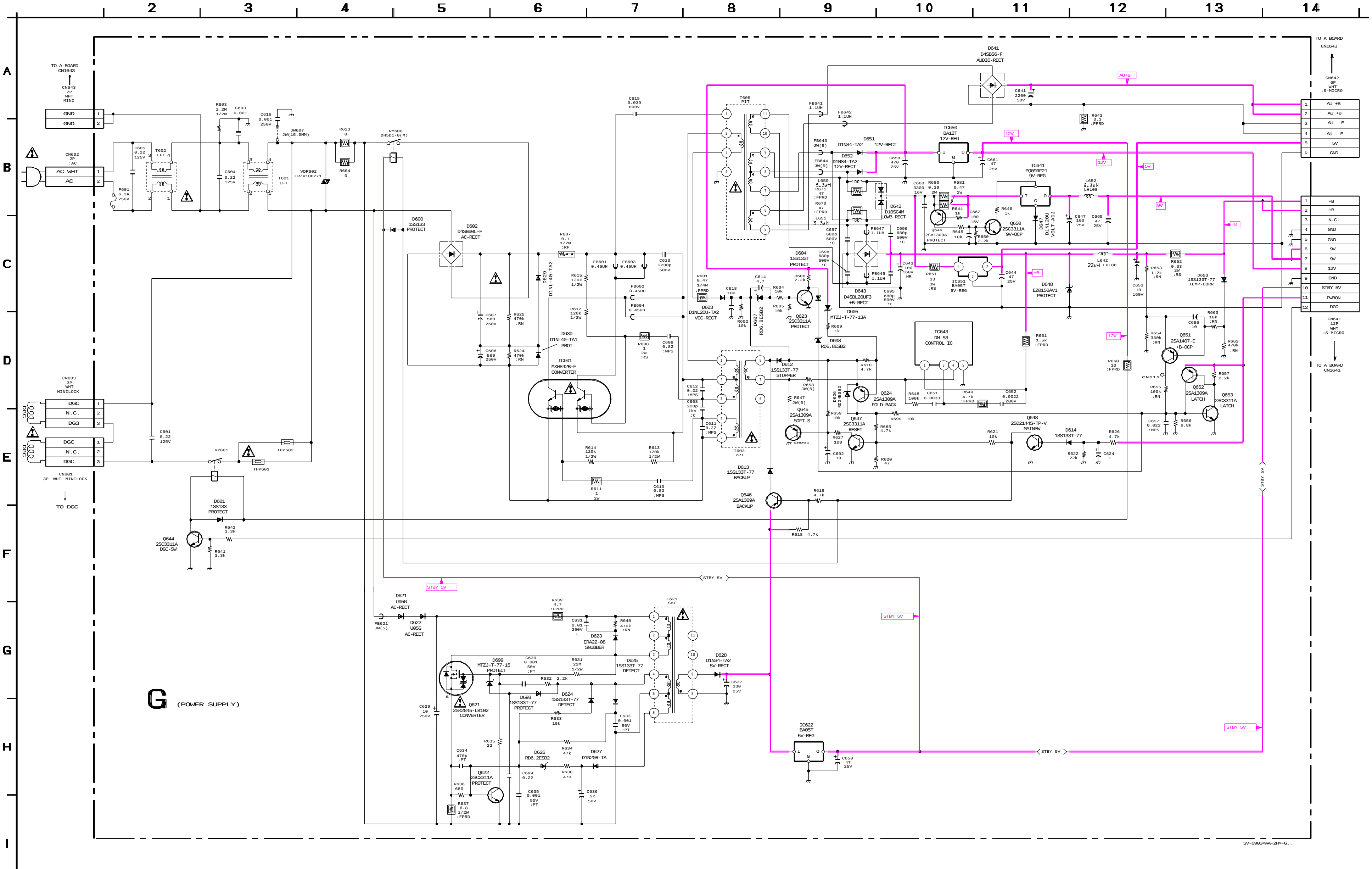
| IC1762 | |
|---|---|
| pin | volt |
| 1 | 3.4 |
| 2 | 9.1 |
| 3 | 3.4 |
| 4 | GND |
| 5 | 6.3 |
| 6 | 212.2 |
| 7 | 147.2 |
| 8 | 149.6 |
| 9 | 145.9 |

| IC1763 | |
|---|---|
| pin | volt |
| 1 | 3.4 |
| 2 | 9.1 |
| 3 | 3.4 |
| 4 | GND |
| 5 | 4.1 |
| 6 | 212.0 |
| 7 | 146.0 |
| 8 | 147.8 |
| 9 | 145.0 |

All voltages are in V

# . C BOARD WAVEFORMS

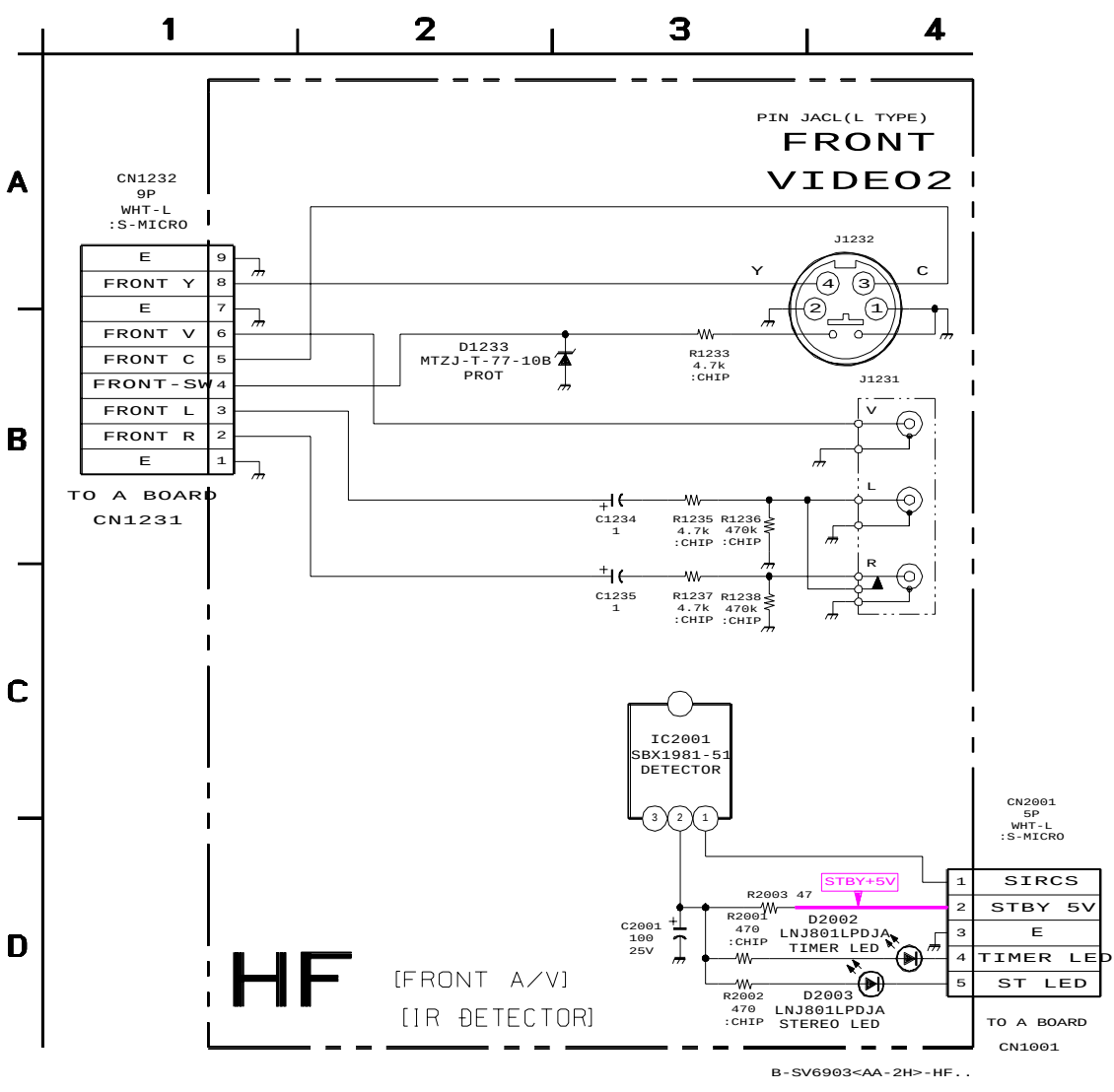
| | | |
|---|---|---|
| 1  154.7 Vp-p (H) | 2 118.8 Vp-p (H) | 3  142.2 Vp-p (H) |

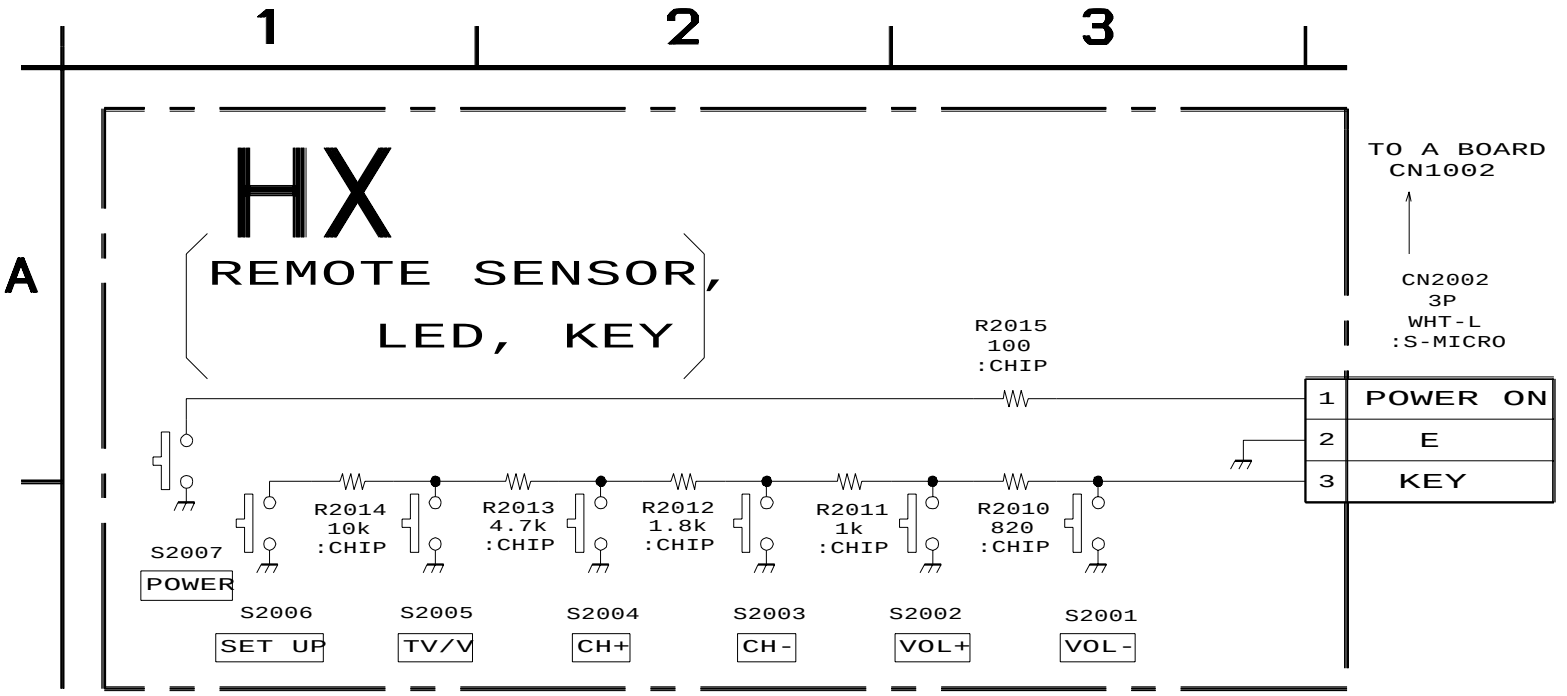


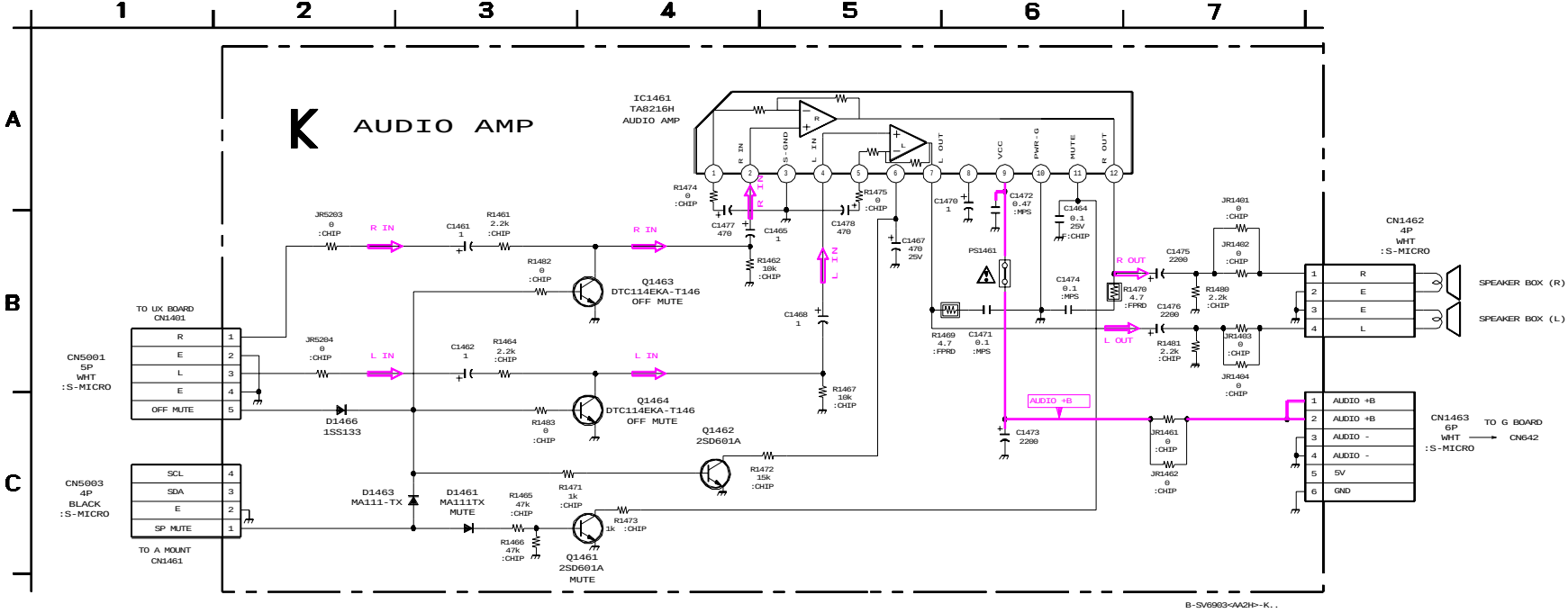
TO A BOARD CN1643
CN643 2P WHT MINI
GND 1
GND 2
CN602 2P :AC
AC WHT 1
AC 2
F601 6.3A 250V
C605 0.22 125V
T602 LFT
R603 2.2M 1/2W
C603 0.001
C604 0.22 125V
C616 0.001 250V
JW607 JW(15.0MM)
T601 LFT
VDR602 ERZV10D271
R623 0
R664 0
RY600 DH5D1-0(M)
D600 1SS133 PROTECT
D602 D4SB60L-F AC-RECT
R607 0.1 1/2W :RF
D629 D1NL-40-TA2
C607 560 250V
C606 560 250V
R625 470k :RN
R624 470k :RN
D630 D1NL40-TA1 PROT
IC601 MX0842B-F CONVERTER
R615 120k 1/2W
R612 120k 1/2W
FB601 0.45UH
FB603 0.45UH
FB602 0.45UH
FB604 0.45UH
C613 2200p 500V
C615 0.039 800V
R608 1 2W :RS
C609 0.82 :MPS
R614 120k 1/2W
R613 120k 1/2W
R611 1 2W
C610 0.82 :MPS
C612 0.22 :MPS
C608 220p 1kV :C
C611 0.22 :MPS
T603 PRT
T605 PIT
R601 0.47 1/4W :FPRD
D603 D1NL20U-TA2 VCC-RECT
C618 100
R602 10k
C614 4.7
D607 RD6.8ESB2
R604 10k
R605 10k
R606 2.2k
Q623 2SC3311A PROTECT
D604 1SS133T PROTECT
D605 MTZJ-T-77-13A
R609 1k
D608 RD6.8ESB2
D612 1SS133T-77 STOPPER
R658 JW(5)
R647 JW(5)
Q645 2SA1309A SOFT.S
R610 4.7k
Q624 2SA1309A FOLD-BACK
D606 RD24ESB2
R659 10k
Q647 2SC3311A RESET
R699 10k
R665 4.7k
R627 100
C602 10
R620 47
D613 1SS133T-77 BACKUP
Q646 2SA1309A BACKUP
R619 4.7k
R618 4.7k
FB641 1.1UH
FB642 1.1UH
FB643 JW(5)
FB644 JW(5)
D651 D1NS4-TA2 12V-RECT
D652 D1NS4-TA2 12V-RECT
L650 3.3µH
R671 47 :FPRD
R670 47 :FPRD
L651 3.3µH
D642 D10SC4M LOWB-RECT
C697 680p 500V :C
C698 680p 500V :C
C696 680p 500V :C
C695 680p 500V :C
FB647 1.1UH
FB645 1.1UH
D643 D4SBL20UF3 +B-RECT
C643 100 160V HR
C658 470 25V
IC650 BA12T 12V-REG
C661 47 25V
D641 D4SBS6-F AUDIO-RECT
C641 2200 50V
R643 3.3 :FPRD
AU+B
12V
5V
9V
+B
C660 3300 16V
R680 0.39 2W
R681 0.47 2W
R644 1k
C662 100 16V
Q649 2SA1309A PROTECT
R645 10k
R650 2.2k
R646 1k
Q650 2SC3311A 9V-OCP
IC641 PQ09RF21 9V-REG
D647 D1NL20U VOLT-ADJ
L652 3.3µH LHL08
C647 100 25V
C665 47 25V
R651 33 3W :RS
IC651 BA05T 5V-REG
C644 47 25V
D648 EZ0150AV1 PROTECT
L642 22µH LHL08
C653 10 160V
R653 1.2k :RN
R652 0.33 2W :RS
D653 1SS133T-77 TEMP-CORR
IC643 DM-58 CONTROL IC
R661 1.5k :FPRD
R648 100k
C651 0.0033
R649 4.7k :FPRD
C652 0.0022 200V
R660 10 :FPRD
C656 10
R663 10k :RN
R654 330k :RN
Q651 2SA1407-E +B-OCP
R662 470k :RN
CN612
R657 2.2k
Q652 2SA1309A LATCH
Q653 2SC3311A LATCH
R655 100k :RN
C657 0.022 :MPS
R656 6.8k
Q648 2SD2144S-TP-V MAINSW
R621 10k
D614 1SS133T-77
R626 4.7k
R622 22k
C624 1
TO K BOARD CN1643
CN642 6P WHT :S-MICRO
1 AU +B
2 AU +B
3 AU - E
4 AU - E
5 5V
6 GND
CN641 12P WHT :S-MICRO
1 +B
2 +B
3 N.C.
4 GND
5 GND
6 9V
7 9V
8 12V
9 GND
10 STBY 5V
11 PWRON
12 DGC
TO A BOARD CN1641
CN603 3P WHT MINILOCK
DGC 1
N.C. 2
DG3 3
DGC 1
N.C. 2
DGC 3
DGC
CN601 3P WHT MINILOCK
TO DGC
C601 0.22 125V
RY601
THP602
THP601
D601 1SS133 PROTECT
Q644 2SC3311A DGC-SW
R642 3.3k
R641 3.3k
STBY 5V
D621 U05G AC-RECT
D622 U05G AC-RECT
FB621 JW(5)
R639 4.7 :FPRD
C631 0.01 250V E
R640 470k :RN
D623 ERA22-08 SNUBBER
T621 SBT
Q621 2SK2845-LB102 CONVERTER
D699 MTZJ-T-77-15 PROTECT
C630 0.001 50V :PT
R631 22M 1/2W
D625 1SS133T-77 DETECT
R632 2.2k
D698 1SS133T-77 PROTECT
D624 1SS133T-77 DETECT
R633 10k
C633 0.001 50V :PT
C629 10 250V
R635 22
R634 47k
D626 RD6.2ESB2
D627 D1N20R-TA
R638 470
C634 470p :PT
Q622 2SC3311A PROTECT
C699 0.22
R636 680
R637 6.8 1/2W :FPRD
C635 0.001 50V :PT
C636 22 50V
D628 D1NS4-TA2 5V-RECT
C637 330 25V
IC622 BA05T 5V-REG
C650 47 25V
G (POWER SUPPLY)
SV-6903<AA-2H>-G..

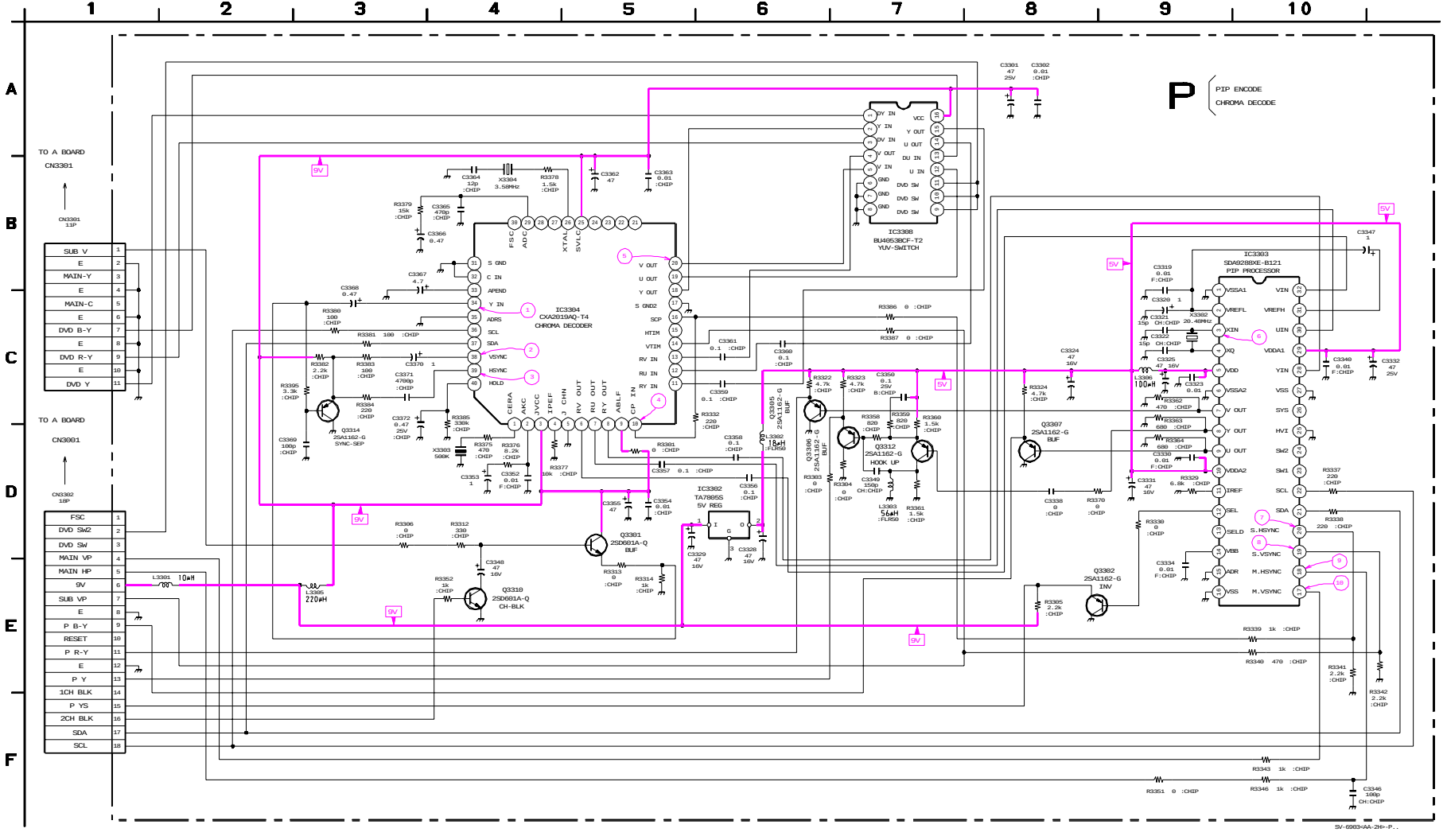
# G BOARD LOCATOR LIST

| DIODE | |
|---|---|
| D600 | A-5 |
| D601 | A-8 |
| D602 | C-3 |
| D603 | C-7 |
| D604 | E-7 |
| D605 | A-8 |
| D606 | A-9 |
| D607 | D-7 |
| D608 | E-7 |
| D612 | B-8 |
| D613 | A-7 |
| D614 | B-11 |
| D621 | C-5 |
| D622 | C-5 |
| D623 | B-6 |
| D624 | B-6 |
| D625 | A-6 |
| D626 | A-5 |
| D627 | A-6 |
| D628 | A-7 |
| D629 | D-3 |
| D630 | D-4 |
| D641 | B-9 |
| D642 | C-9 |
| D643 | D-8 |
| D647 | D-10 |
| D648 | D-9 |
| D651 | C-9 |
| D652 | C-8 |
| D653 | E-8 |
| D698 | B-5 |
| D699 | B-6 |
| **IC** | |
| IC601 | D-5 |
| IC622 | A-8 |
| IC641 | D-11 |
| IC643 | C-8 |
| IC650 | B-10 |
| IC651 | A-10 |
| **TRANSISTOR** | |
| Q621 | B-6 |
| Q622 | B-5 |
| Q623 | D-7 |
| Q624 | A-9 |
| Q644 | B-11 |
| Q645 | B-7 |
| Q646 | A-8 |
| Q647 | A-8 |
| Q648 | B-11 |
| Q649 | C-10 |
| Q650 | C-10 |
| Q651 | D-7 |
| Q652 | E-7 |
| Q653 | E-7 |


1
2
3
4
A
B
C
D
PIN JACL(L TYPE)
FRONT
VIDEO2
CN1232
9P
WHT-L
:S-MICRO
E 9
FRONT Y 8
E 7
FRONT V 6
FRONT C 5
FRONT-SW 4
FRONT L 3
FRONT R 2
E 1
TO A BOARD
CN1231
J1232
Y
C
D1233
MTZJ-T-77-10B
PROT
R1233
4.7k
:CHIP
J1231
V
L
R
C1234
1
R1235
4.7k
:CHIP
R1236
470k
:CHIP
C1235
1
R1237
4.7k
:CHIP
R1238
470k
:CHIP
IC2001
SBX1981-51
DETECTOR
3 2 1
CN2001
5P
WHT-L
:S-MICRO
STBY+5V
R2003 47
R2001
470
:CHIP
D2002
LNJ801LPDJA
TIMER LED
C2001
100
25V
R2002
470
:CHIP
D2003
LNJ801LPDJA
STEREO LED
1 SIRCS
2 STBY 5V
3 E
4 TIMER LED
5 ST LED
TO A BOARD
CN1001
HF
[FRONT A/V]
[IR DETECTOR]
B-SV6903<AA-2H>-HF..


1
2
3
A
HX
REMOTE SENSOR,
LED, KEY
TO A BOARD
CN1002
CN2002
3P
WHT-L
:S-MICRO
R2015
100
:CHIP
1
POWER ON
2
E
3
KEY
S2007
POWER
R2014
10k
:CHIP
R2013
4.7k
:CHIP
R2012
1.8k
:CHIP
R2011
1k
:CHIP
R2010
820
:CHIP
S2006
SET UP
S2005
TV/V
S2004
CH+
S2003
CH-
S2002
VOL+
S2001
VOL-


1
2
3
4
5
6
7
A
B
C
K AUDIO AMP
IC1461
TA8216H
AUDIO AMP
R IN
S-GND
L IN
L OUT
VCC
PWR-G
MUTE
R OUT
R IN
L IN
JR5203
0
:CHIP
C1461
1
R1461
2.2k
:CHIP
R1482
0
:CHIP
Q1463
DTC114EKA-T146
OFF MUTE
JR5204
0
:CHIP
C1462
1
R1464
2.2k
:CHIP
R1483
0
:CHIP
Q1464
DTC114EKA-T146
OFF MUTE
D1466
1SS133
D1463
MA111-TX
D1461
MA111TX
MUTE
R1465
47k
:CHIP
R1466
47k
:CHIP
R1471
1k
:CHIP
R1473
1k
:CHIP
Q1461
2SD601A
MUTE
Q1462
2SD601A
R1472
15k
:CHIP
R1467
10k
:CHIP
R1474
0
:CHIP
C1477
470
R1475
0
:CHIP
C1478
470
C1465
1
R1462
10k
:CHIP
C1468
1
C1467
470
25V
C1470
1
C1472
0.47
:MPS
C1464
0.1
25V
:CHIP
PS1461
C1474
0.1
:MPS
R1469
4.7
:FPRD
C1471
0.1
:MPS
C1473
2200
AUDIO +B
R1470
4.7
:FPRD
C1475
2200
C1476
2200
R1480
2.2k
:CHIP
R1481
2.2k
:CHIP
JR1401
0
:CHIP
JR1402
0
:CHIP
JR1403
0
:CHIP
JR1404
0
:CHIP
JR1461
0
:CHIP
JR1462
0
:CHIP
CN1462
4P
WHT
:S-MICRO
1 R
2 E
3 E
4 L
SPEAKER BOX (R)
SPEAKER BOX (L)
CN1463
6P
WHT
:S-MICRO
1 AUDIO +B
2 AUDIO +B
3 AUDIO -
4 AUDIO -
5 5V
6 GND
TO G BOARD
CN642
TO UX BOARD
CN1401
CN5001
5P
WHT
:S-MICRO
R 1
E 2
L 3
E 4
OFF MUTE 5
CN5003
4P
BLACK
:S-MICRO
SCL 4
SDA 3
E 2
SP MUTE 1
TO A MOUNT
CN1461
B-SV6903<AA2H>-K..


P
PIP ENCODE
CHROMA DECODE
TO A BOARD
CN3301
CN3301
11P
SUB V
E
MAIN-Y
E
MAIN-C
E
DVD B-Y
E
DVD R-Y
E
DVD Y
TO A BOARD
CN3001
CN3002
18P
FSC
DVD SW2
DVD SW
MAIN VP
MAIN HP
9V
SUB VP
E
P B-Y
RESET
P R-Y
E
P Y
1CH BLK
P YS
2CH BLK
SDA
SCL
IC3308
BU4053BCF-T2
YUV-SWITCH
IC3304
CXA2019AQ-T4
CHROMA DECODER
IC3303
SDA9288XE-B121
PIP PROCESSOR
IC3302
TA7805S
5V REG
Q3301
2SD601A-Q
BUF
Q3310
2SD601A-Q
CH-BLK
Q3314
2SA1162-G
SYNC-SEP
Q3307
2SA1162-G
BUF
Q3312
2SA1162-G
HOOK UP
Q3302
2SA1162-G
INV
Q3305
2SA1162-G
BUF
Q3306
2SA1162-G
BUF
X3303
500K
X3304
3.58MHz
X3302
20.48MHz
L3301
10uH
L3305
220uH
L3302
18uH
FUSE
L3303
56uH
FUSE
L3306
100uH
5V
9V
SV-6983-AA-ZH-P..

## P BOARD IC VOLTAGE LIST

| IC3302 | |
|---|---|
| pin | volt |
| IN | 9.0 |
| OUT | 5.0 |
| GND | GND |

| IC3303 | |
|---|---|
| pin | volt |
| 1 | GND |
| 2 | 3.0 |
| 3 | 2.4 |
| 4 | 1.7 |
| 5 | 4.8 |
| 6 | GND |
| 7 | 0.4 |
| 8 | 0.0 |
| 9 | 0.6 |
| 10 | 5.0 |
| 11 | 1.9 |
| 12 | 0.0 |
| 13 | NC |
| 14 | -3.0 |
| 15 | GND |
| 16 | GND |
| 17 | 0.7 |
| 18 | 0.3 |
| 19 | 0.5 |
| 20 | 0.5 |
| 21 | 4.0 |
| 22 | 4.0 |
| 23 | NC |
| 24 | NC |
| 25 | GND |
| 26 | NC |
| 27 | GND |
| 28 | 1.9 |
| 29 | 4.9 |
| 30 | 2.4 |
| 31 | 3.9 |
| 32 | 2.4 |

| IC3304 | |
|---|---|
| pin | volt |
| 1 | 2.3 |
| 2 | 4.1 |
| 3 | 8.8 |
| 4 | 1.7 |
| 5 | GND |
| 6 | 2.9 |
| 7 | 2.9 |
| 8 | 2.9 |
| 9 | 8.8 |
| 10 | 0.7 |
| 11 | 4.0 |
| 12 | 4.3 |
| 13 | 4.3 |
| 14 | 0.5 |
| 15 | NC |
| 16 | 0.7 |
| 17 | GND |
| 18 | 3.0 |
| 19 | 2.9 |
| 20 | 2.9 |
| 21 | NC |
| 22 | NC |
| 23 | NC |
| 24 | NC |
| 25 | 8.8 |
| 26 | 2.5 |
| 27 | 3.0 |
| 28 | 3.0 |
| 29 | 4.9 |
| 30 | NC |
| 31 | GND |
| 32 | GND |
| 33 | 3.9 |
| 34 | 4.3 |
| 35 | GND |
| 36 | 4.0 |
| 37 | 4.0 |
| 38 | 3.4 |
| 39 | 2.6 |
| 40 | 0.7 |

| IC3308 | |
|---|---|
| pin | volt |
| 1 | 3.5 |
| 2 | 3.0 |
| 3 | 3.5 |
| 4 | 2.9 |
| 5 | 2.9 |
| 6 | GND |
| 7 | GND |
| 8 | GND |
| 9 | 0.3 |
| 10 | 0.3 |
| 11 | 0.3 |
| 12 | 2.9 |
| 13 | 3.5 |
| 14 | 2.9 |
| 15 | 3.0 |
| 16 | 8.9 |

All voltages are in V

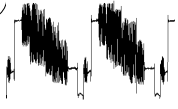
## P BOARD TRANSISTOR VOLTAGE LIST

| | B | C | E |
|---|---|---|---|
| Q3301 | 5.0 | 8.8 | 4.4 |
| Q3302 | 0.0 | GND | 0.7 |
| Q3305 | 0.4 | GND | 1.0 |
| Q3306 | 0.7 | 0.0 | 1.3 |
| Q3307 | 0.6 | GND | 1.2 |
| Q3310 | 0.0 | 5.0 | GND |
| Q3312 | 0.0 | 0.0 | 0.7 |
| Q3314 | 4.4 | GND | 5.0 |

All voltages are in V

# •P BOARD WAVEFORMS

1



2.2 Vp-p (H)

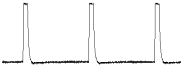
2

1.9 Vp-p (8MHz)

3

2.0 Vp-p (H)

4



3.2 Vp-p (H)

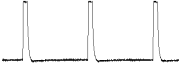
5

1.0 Vp-p (H)

6

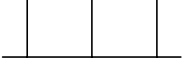
3.9 Vp-p (V)

7



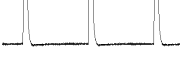
3.2 Vp-p (H)

8



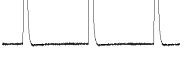
4.2 Vp-p (V)

9

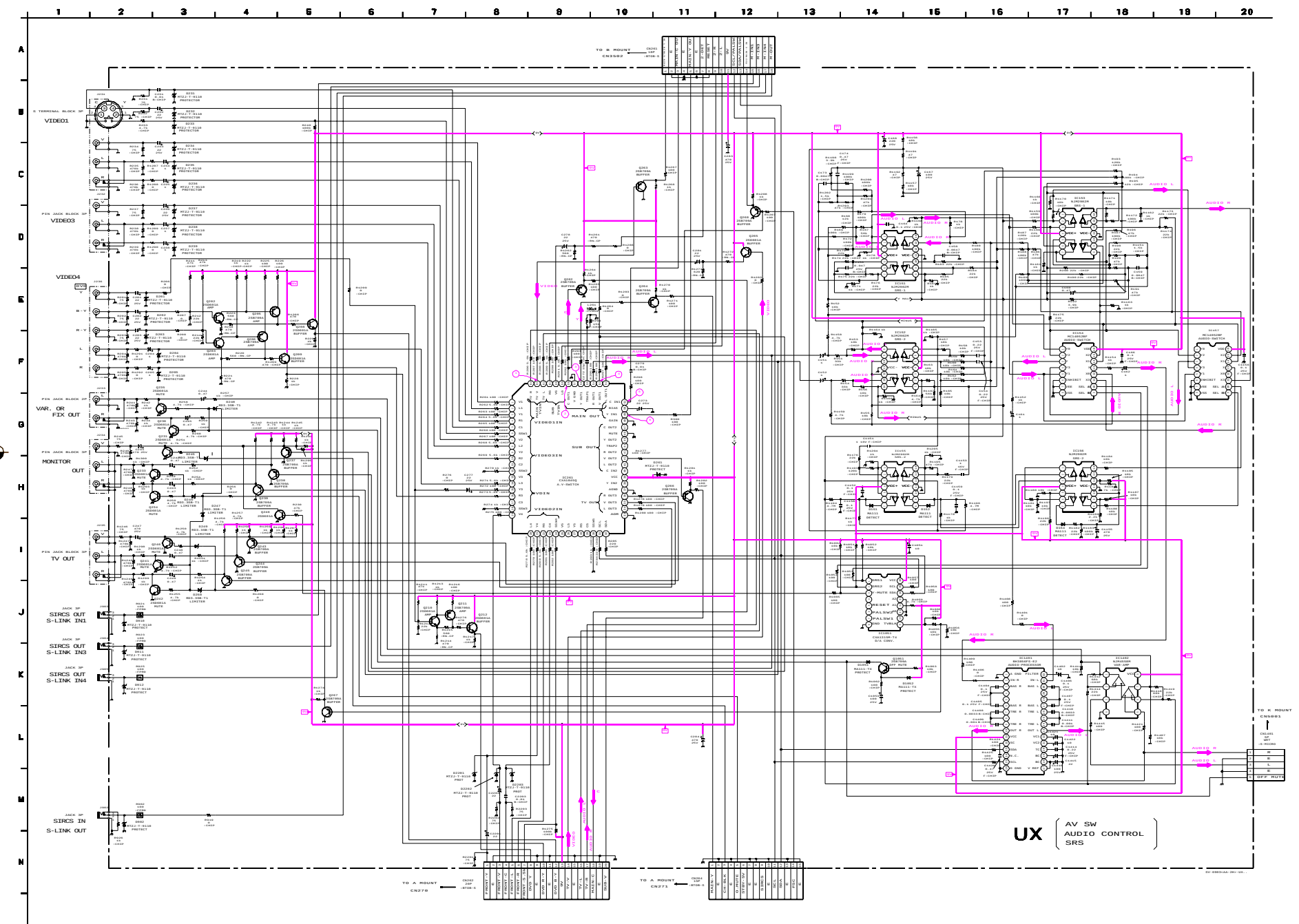


6.4 Vp-p (H)

10



6.0 Vp-p (V)

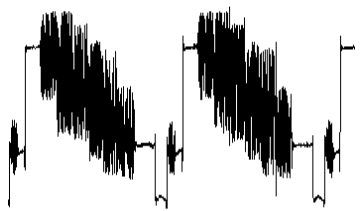
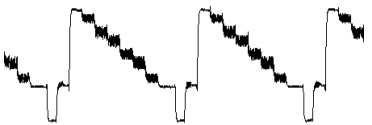
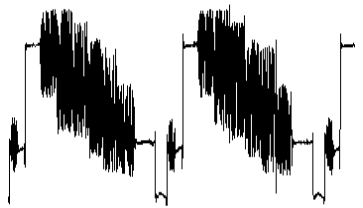
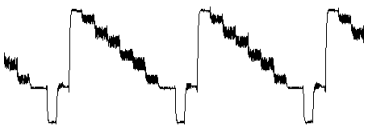

VIDEO1
VIDEO3
VIDEO4
VAR. OR FIX OUT
MONITOR OUT
TV OUT
SIRCS OUT S-LINK IN1
SIRCS OUT S-LINK IN3
SIRCS OUT S-LINK IN4
SIRCS IN S-LINK OUT
TO B MOUNT CN3502
TO K MOUNT CN6001
TO A MOUNT CN270
TO A MOUNT CN271
UX
AV SW
AUDIO CONTROL
SRS

## UX BOARD LOCATOR LIST

| DIODE | | | TRANSISTOR | | |
|---|---|---|---|---|---|
| | COMPONENT SIDE (A) | CONDUCTOR SIDE (B) | | COMPONENT SIDE (A) | CONDUCTOR SIDE (B) |
| D151 | | B-8 | Q202 | | B-4 |
| D152 | | C-8 | Q203 | | C-4 |
| D154 | C-2 | | Q205 | | B-4 |
| D201 | B-6 | B-5 | Q206 | | C-4 |
| D202 | B-6 | B-5 | Q208 | | B-4 |
| D204 | E-6 | E-5 | Q209 | | C-4 |
| D203 | C-6 | C-5 | Q210 | F-5 | |
| D205 | E-6 | E-5 | Q211 | E-5 | |
| D231 | B-4 | | Q212 | F-5 | |
| D232 | B-4 | B-6 | Q231 | | B-3 |
| D233 | B-4 | B-6 | Q233 | | C-3 |
| D234 | B-4 | B-6 | Q234 | | D-3 |
| D235 | | B-6 | Q235 | | C-2 |
| D236 | D-6 | D-5 | Q236 | | D-2 |
| D237 | B-4 | B-6 | Q237 | B-7 | |
| D238 | D-6 | D-5 | Q238 | B-7 | |
| D239 | D-5 | D-5 | Q239 | B-7 | |
| D245 | | C-3 | Q240 | | F-4 |
| D246 | | E-2 | Q241 | | F-4 |
| D247 | F-6 | | Q242 | | E-3 |
| D248 | | E-2 | Q243 | | E-3 |
| D249 | F-6 | | Q244 | | E-3 |
| D250 | | F-3 | Q245 | | E-4 |
| D261 | D-7 | D-3 | Q246 | B-6 | C-3 |
| D902 | E-8 | E-2 | Q262 | C-6 | |
| D910 | E-4 | E-7 | Q263 | A-3 | |
| D911 | E-4 | E-6 | Q264 | B-6 | |
| D912 | E-5 | E-5 | Q265 | E-6 | |
| D1051 | | B-1 | Q266 | | D-3 |
| D1052 | | B-2 | Q267 | F-7 | |
| D2201 | F-5 | F-5 | Q268 | B-8 | |
| D2202 | F-5 | F-5 | Q1051 | | A-2 |
| D2203 | F-5 | F-5 | | | |

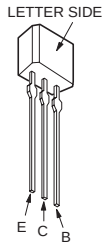
| IC | | |
|---|---|---|
| IC151 | D-3 | |
| IC152 | E-2 | |
| IC153 | C-3 | |
| IC154 | B-3 | |
| IC155 | C-2 | |
| IC156 | C-3 | |
| IC157 | C-3 | |
| IC261 | C-6 | |
| IC1051 | B-8 | |
| IC1401 | B-2 | |
| IC1402 | A-2 | |

# •UX BOARD WAVEFORMS

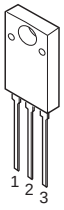
| | | |
|---|---|---|
| 1  1.0 Vp-p (H) | 2 1.0 Vp-p (H) | 3  1.6 Vp-p (H) |
| 4  2.3 Vp-p (H) | 5 1.9 Vp-p (H) | 6  2.0 Vp-p (H) |

## 6-3. SEMICONDUCTORS

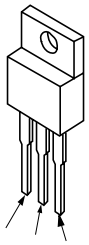
2SA1175-HFE
2SA933AS-QRT
2SC2785-HFE



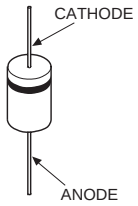

D10SC4MR



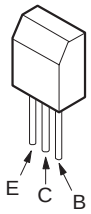

2SA1837
2SC4159-E
2SC4793
2SD2012



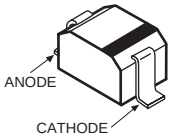
EGP20G
ERC06-15S



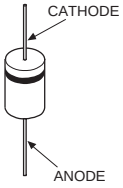

2SC3209LK



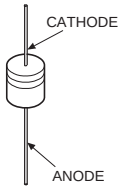

MA111
RD3.3SB
1SS355



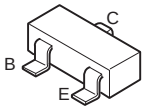

D1NL20
D2L20U
EL1Z
EGP30D
ERD29-08J
EZ0150AV1
GP08D
MTZJ-T-9110
MTZJ-33A
1SS83



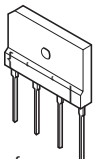

D1NS4
MTZJ-7.5B
MTZJ-T-77-13A
RD10ESB2
RD33ESB1
RD3.9ES-B1
RD3.9ES-B2
RD5.6ESB2
RD5.6ESB3
1SS119-25
1SS133T-77



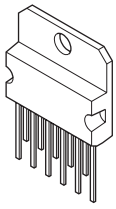

2SA1037K-T146-R
2SA1162-G
2SA1330-06
2SB709A
2SC1623-L5L6
2SD601A-Q



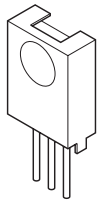

D10SBS4F
D6SB60L



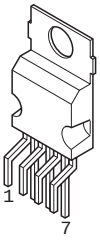
TDA7262



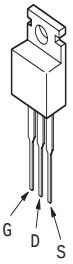
SBX1981-51



TDA8172




IRF614



# SECTION 7
# EXPLODED VIEWS

• Items with no part number and no description are not stocked because they are seldom required for routine service

• The component parts of an assembly are indicated by the reference numbers in the remarks column.

• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

**Note:**

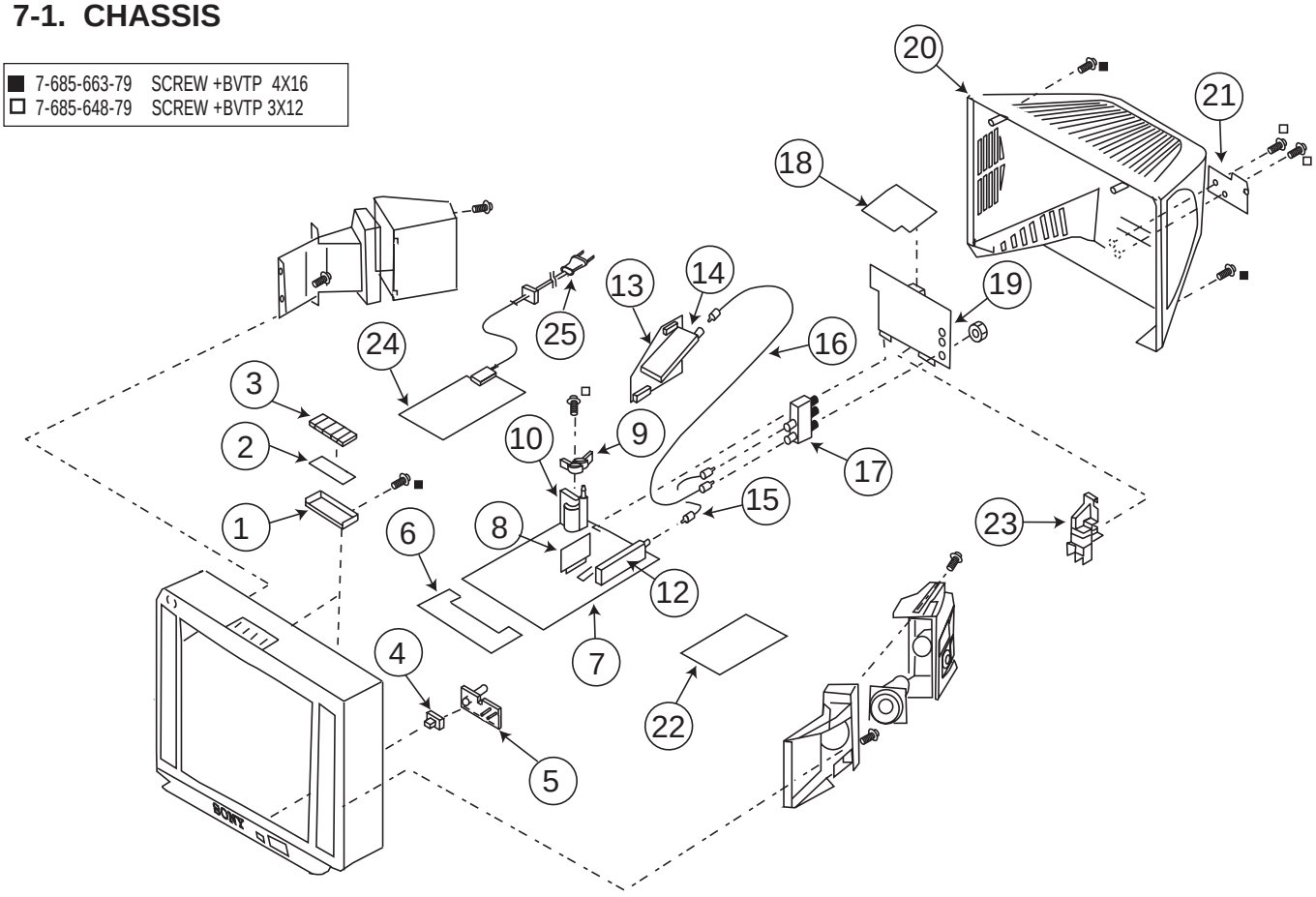
**The components identified with gray shading and a critical symbol ( ⚠ ) are critical for safety. Replace only with part number specified.**

**Note:**

**Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.**

## 7-1. CHASSIS

■ 7-685-663-79 SCREW +BVTP 4X16
□ 7-685-648-79 SCREW +BVTP 3X12



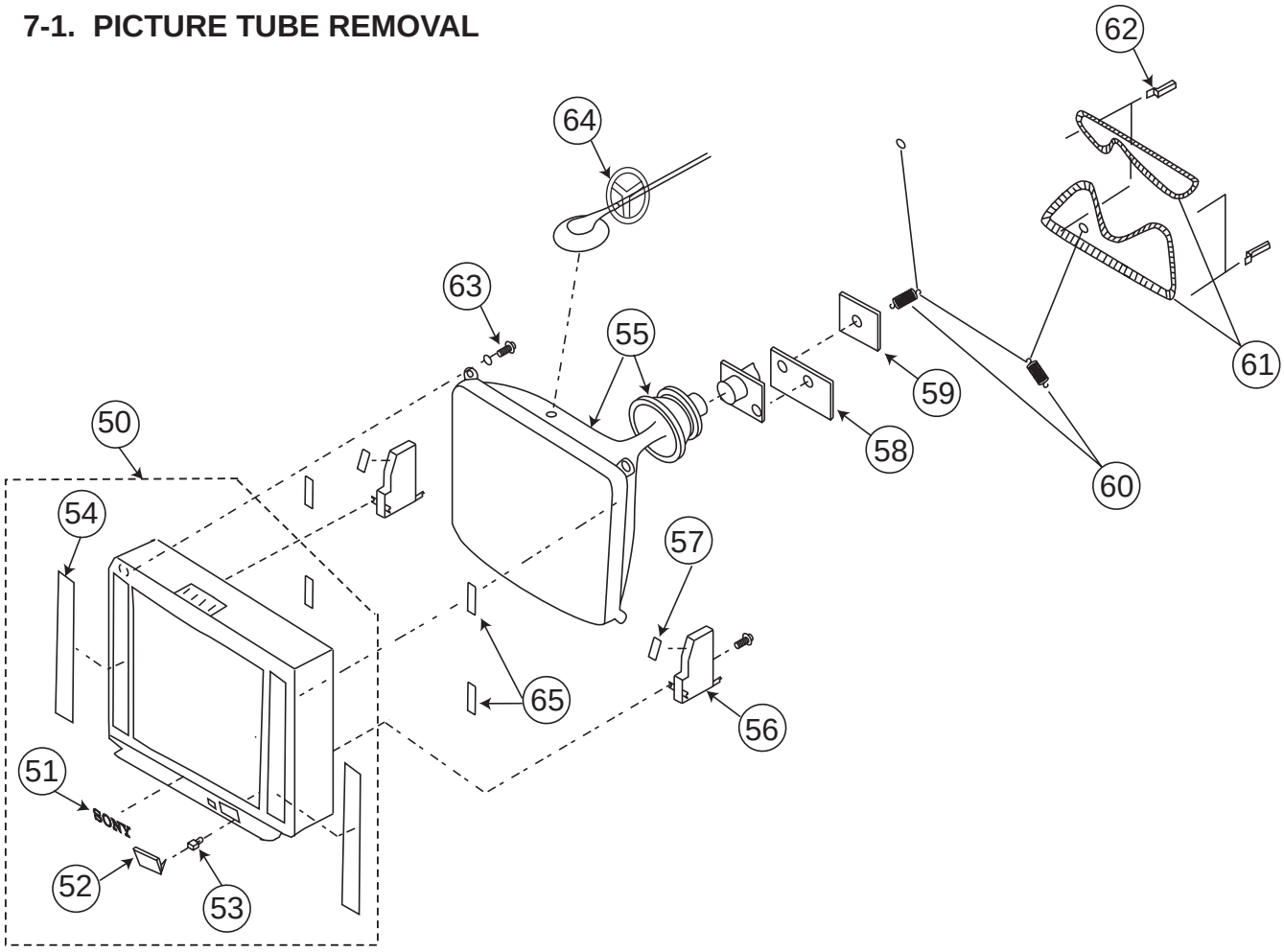

| REF.NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 1 | * | 4-065-415-01 | BRACKET, HX | |
| 2 | * | A-1372-532-A | HX BOARD, MOUNTED | |
| 3 | | 4-065-414-01 | BUTTON, MULTI | |
| 4 | | 4-064-809-01 | FILTER, REMOTE | |
| 5 | | 4-064-808-01 | GUIDE, LED | |
| 6 | * | A-1372-520-A | HF BOARD, MOUNTED | |
| 7 | * | A-1298-640-A | A BOARD, COMPLETE (KV-32FV1/34FVL1) | |
| 7 | * | A-1298-677-A | A BOARD, COMPLETE (KV-36FV1) | |
| 8 | * | A-1195-145-A | P BOARD, COMPLETE | |
| 9 | * | 4-065-883-01 | HOLDER, FBT | |
| 10 | ⚠ | 1-453-282-11 | TRANSFORMER, FLYBACK (NX-4600//X4C) (KV-32FV1/34FVL1 ONLY) | |
| 10 | ⚠ | 1-453-286-11 | TRANSFORMER, FLYBACK (NX-4600//X4C4) (KV-36FV1 ONLY) | |

| REF.NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 12 | ⚠ | 8-598-431-00 | TUNER, FSS BTF-WA411 | |
| 13 | * | A-1298-641-A | AX BOARD, COMPLETE | |
| 14 | ⚠ | 8-598-430-00 | TUNER, FSS BTF-FA401 | |
| 15 | * | 1-557-056-31 | CABLE, P-P | |
| 16 | * | 1-556-945-21 | CABLE, P-P | |
| 17 | | 8-598-414-00 | ANTENNA SWITCH AS-2F | |
| 18 | * | A-1135-959-A | B BOARD, COMPLETE | |
| 19 | * | A-1394-912-A | UX BOARD, COMPLETE | |
| 20 | | 4-064-771-01 | COVER, REAR (KV-32FV1/34FVL1) | |
| 20 | | 4-065-905-01 | COVER, REAR (KV-36FV1) | |
| 21 | | 4-059-500-01 | LABEL, ANTENNA | |
| 22 | * | A-1385-187-A | K BOARD, COMPLETE | |
| 23 | * | 4-052-905-01 | V5/6 BRACKET | |
| 24 | * | A-1316-397-A | G BOARD, COMPLETE | |
| 25 | ⚠ | 1-751-059-11 | CORD, POWER (WITHCONNECTOR) 10A/125V | |

**The components identified with gray shading and a critical symbol ( ⚠ ) are critical for safety. Replace only with part number specified.**

**Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.**

## 7-1. PICTURE TUBE REMOVAL




| REF.NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 50 | | X-4035-961-1 | BEZNET ASSY (KV-32FV1/34FVL1) | 51-54 |
| 50 | | X-4035-918-1 | BEZNET ASSY (KV-36FV1) | 51-54 |
| 51 | | 3-704-179-31 | EMBLEM(NO.9), SONY | |
| 52 | | 4-064-807-01 | DOOR, FRONT TERMINAL | |
| 53 | | 4-042-192-01 | CATCHER, PUSH | |
| 54 | | 4-066-290-01 | GRILLE, SPEAKER (KV-32FV1/34FVL1) | |
| 54 | | 4-065-906-01 | GRILLE, SPEAKER (KV-36FV1) | |
| 55 | ⚠ | 8-735-047-61 | ITC 34RSN-A1 (KV-32FV1/34FVL1) | |
| 55 | ⚠ | 8-735-048-61 | ITC 38RSN-A1 (KV-36FV1) | |
| 56 | | 4-067-044-01 | CRT, SUPPORT (KV-36FV1) | |
| 57 | | 4-067-050-01 | CUSHION, CRT SUPPORT | |
| 58 | * | A-1375-179-A | WA BOARD, MOUNTED (KV-32FV1/34FVL1) | |
| 58 | * | A-1375-181-A | WA BOARD, MOUNTED (KV-36FV1) | |
| 59 | * | A-1335-103-A | C BOARD,COMPLETE | |
| 60 | | 4-036-329-01 | SPRING (B), TENSION | |
| 61 | ⚠ | 1-416-827-11 | COIL, DEGAUSSING (KV-32FV1/34FVL1) | |
| 61 | ⚠ | 1-416-828-11 | COIL, DEGAUSSING (KV-36FV1) | |
| 62 | | 4-065-895-01 | HOLDER, DGC | |
| 63 | | 4-046-765-01 | SCREW, TAPPING 7+CROWN WASHER | |
| 64 | | 3-704-372-31 | HOLDER, HV CABLE | |
| 65 | * | 4-064-378-01 | CUSHION (20MM), CRT | |

# SECTION 8
# ELECTRICAL PARTS LIST

A

**Note:**

**The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**

**Note:**

**Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF = µF

INDUCTORS
- UH = µH, MMH = mH

When indicating parts by reference number, please include the board name.

A

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| * | **A-1298-640-A** | **A BOARD, COMPLETE** | | | |
| | 1-923-084-02 | WIRE UL1007 AWG26 60MM BLK | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | |
| | **CAPACITOR** | | | | |
| C001 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C003 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C005 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C009 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C010 | 1-163-037-11 | CERAMIC CHIP | 0.022MF | 10% | 50V |
| C012 | 1-163-010-11 | CERAMIC CHIP | 0.0012MF | 10% | 50V |
| C013 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C014 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C023 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C028 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C029 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C030 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C035 | 1-163-237-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C036 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C037 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C038 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C039 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C040 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C051 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C053 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C056 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C061 | 1-163-037-11 | CERAMIC CHIP | 0.022MF | 10% | 50V |
| C062 | 1-163-037-11 | CERAMIC CHIP | 0.022MF | 10% | 50V |
| C063 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C071 | 1-164-096-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C072 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C075 | 1-107-823-11 | CERAMIC CHIP | 0.47MF | 10% | 16V |
| C351 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C352 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C353 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C354 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C355 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C356 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C357 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C358 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C359 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C360 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C361 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C362 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C363 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C364 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C365 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C366 | 1-130-495-00 | FILM | 0.1MF | 5% | 50V |
| C367 | 1-130-495-00 | FILM | 0.1MF | 5% | 50V |
| C368 | 1-130-495-00 | FILM | 0.1MF | 5% | 50V |
| C369 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C370 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C371 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C372 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C373 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C374 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C375 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C376 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C377 | 1-130-495-00 | FILM | 0.1MF | 5% | 50V |
| C378 | 1-136-244-11 | FILM | 0.1MF | 5% | 50V |
| C379 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C380 | 1-126-942-61 | ELECT | 1000MF | 20% | 25V |
| C381 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C382 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C383 | 1-130-495-00 | FILM | 0.1MF | 5% | 50V |
| C384 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C385 | 1-164-182-11 | CERAMIC CHIP | 0.0033MF | 10% | 50V |
| C386 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |

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**Note:** The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**Note:** Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C387 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C388 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C390 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C391 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C392 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C393 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C394 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C395 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C397 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C398 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C501 | 1-102-110-00 | CERAMIC CHIP | 220PF | 10% | 50V |
| C502 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C503 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C504 | 1-102-228-00 | CERAMIC CHIP | 470PF | 10% | 500V |
| C505 | 1-102-228-00 | CERAMIC CHIP | 470PF | 10% | 500V |
| C506 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V |
| C507 ⚠ | 1-162-116-00 | CERAMIC CHIP | 680PF | 10% | 2KV |
| C508 | 1-102-228-00 | CERAMIC CHIP | 470PF | 10% | 500V |
| C509 | 1-162-116-00 | CERAMIC CHIP | 680PF | 10% | 2KV |
| C510 | 1-137-150-11 | MYLAR | 0.01MF | 10% | 100V |
| C511 ⚠ | 1-137-347-11 | FILM | 0.022MF | 3% | 2KV |
| C512 | 1-129-928-00 | FILM | 0.0027MF | 10% | 630V |
| C513 ⚠ | 1-130-118-00 | FILM | 0.051MF | 5% | 400V |
| C514 ⚠ | 1-115-521-11 | FILM | 0.82MF | 5% | 200V |
| C515 | 1-106-343-00 | MYLAR | 0.001MF | 10% | 100V |
| C516 | 1-136-540-11 | FILM | 0.82MF | 5% | 200V |
| C517 | 1-107-649-11 | ELECT | 2.2MF | 20% | 250V |
| C518 | 1-106-395-00 | MYLAR | 0.15MF | 10% | 200V |
| C519 | 1-162-815-11 | CERAMIC CHIP | 47PF | 5% | 500V |
| C520 | 1-164-646-11 | CERAMIC CHIP | 2200PF | 10% | 500V |
| C521 | 1-163-010-11 | CERAMIC CHIP | 0.0012MF | 10% | 50V |
| C522 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C525 | 1-102-244-00 | CERAMIC CHIP | 220PF | 10% | 500V |
| C526 | 1-107-662-11 | ELECT | 22MF | 20% | 250V |
| C527 | 1-162-116-00 | CERAMIC CHIP | 680PF | 10% | 2KV |
| C528 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C529 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C530 | 1-137-366-11 | FILM | 0.0022MF | 5% | 50V |
| C531 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C532 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C537 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C539 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C540 | 1-104-710-11 | ELECT | 22MF | 20% | 160V |
| C541 | 1-128-560-11 | ELECT | 22MF | 20% | 100V |
| C544 | 1-129-718-00 | FILM | 0.022MF | 5% | 630V |
| C545 | 1-106-387-00 | MYLAR | 0.068MF | 10% | 200V |
| C546 | 1-106-343-00 | MYLAR | 0.001MF | 10% | 100V |
| C547 | 1-106-343-00 | MYLAR | 0.001MF | 10% | 100V |
| C548 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C549 | 1-106-375-12 | MYLAR | 0.022MF | 20% | 200V |
| C550 | 1-102-002-00 | CERAMIC CHIP | 680PF | 10% | 500V |
| C551 | 1-109-954-11 | ELECT | 0.47MF | 20% | 160V |
| C552 | 1-102-244-00 | CERAMIC CHIP | 220PF | 10% | 500V |
| C553 | 1-117-665-11 | FILM | 0.33MF | 5% | 200V |
| C554 ⚠ | 1-115-350-51 | CERAMIC CHIP | 0.0047MF | | 2KV |
| C561 | 1-126-967-11 | ELECT | 47MF | 20% | 50V |
| C563 | 1-104-666-11 | ELECT | 220MF | 20% | 25V |
| C564 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C565 | 1-126-969-11 | ELECT | 220MF | 20% | 50V |
| C568 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |
| C571 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C599 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C1002 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1003 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C1004 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1101 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C1103 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C1104 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1105 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1106 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1107 | 1-163-037-11 | CERAMIC CHIP | 0.022MF | 10% | 50V |
| C1108 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C1109 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1110 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C1111 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C1112 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C1117 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1118 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1351 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C1353 | 1-163-037-11 | CERAMIC CHIP | 0.022MF | 10% | 50V |
| C1355 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1356 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1357 | 1-107-823-11 | CERAMIC CHIP | 0.47MF | 10% | 16V |
| C1358 | 1-126-940-11 | ELECT | 330MF | 20% | 25V |
| C1359 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C1360 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1361 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C1362 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C1363 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1367 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1368 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1369 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C1370 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1371 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |

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| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C1372 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C1373 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C1501⚠ | 1-117-659-71 | FILM | 0.1MF | 5% | 200V |
| | | | | | (KV-36FV1 ONLY) |

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN270 | 1-573-298-11 | CONNECTOR, BOARD TO BOARD | 20P |
| CN271 * | 1-691-616-21 | CONNECTOR, BOARD TO BOARD | 15P |
| CN351 * | 1-564-509-11 | PLUG, CONNECTOR | 6P |
| CN382 * | 1-564-507-11 | PLUG, CONNECTOR | 4P |
| CN501 * | 1-580-798-11 | CONNECTOR PIN (DY) | 6P |
| CN503 * | 1-564-508-11 | PLUG, CONNECTOR | 5P |
| CN1001* | 1-564-508-11 | PLUG, CONNECTOR | 5P |
| CN1002* | 1-564-506-11 | PLUG, CONNECTOR | 3P |
| CN1101 | 1-573-298-11 | CONNECTOR, BOARD TO BOARD | 20P |
| CN1231* | 1-564-512-11 | PLUG, CONNECTOR | 9P |
| CN1461* | 1-564-507-11 | PLUG, CONNECTOR | 4P |
| CN1641* | 1-564-515-11 | PLUG, CONNECTOR | 12P |
| CN1643* | 1-508-784-00 | PIN CONNECTOR (5MMPITCH) | 1P |
| CN1941* | 1-564-511-11 | PLUG, CONNECTOR | 8P |
| CN1942* | 1-564-509-11 | PLUG, CONNECTOR | 6P |
| CN3001 | 1-573-297-21 | CONNECTOR, BOARD TO BOARD | 18P |
| CN3002 | 1-573-978-21 | CONNECTOR, BOARD TO BOARD | 11P |

**DIODE**

| | | |
|---|---|---|
| D001 | 8-719-991-33 | DIODE 1SS133T-77 |
| D002 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D003 | 8-719-991-33 | DIODE 1SS133T-77 |
| D004 | 8-719-110-17 | DIODE RD10ESB2 |
| D011 | 8-719-109-72 | DIODE RD3.9ESB2 |
| D012 | 8-719-991-33 | DIODE 1SS133T-77 |
| D013 | 8-719-991-33 | DIODE 1SS133T-77 |
| D014 | 8-719-991-33 | DIODE 1SS133T-77 |
| D015 | 8-719-991-33 | DIODE 1SS133T-77 |
| D353 | 8-719-991-33 | DIODE 1SS133T-77 |
| D356 | 8-719-991-33 | DIODE 1SS133T-77 |
| D360 | 8-719-110-17 | DIODE RD10ESB2 |
| D362 | 8-719-991-33 | DIODE 1SS133T-77 |
| D363 | 8-719-404-49 | DIODE MA111 |
| D368 | 8-719-991-33 | DIODE 1SS133T-77 |
| D501 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D502 | 8-719-945-80 | DIODE ERC06-15S |
| D503 | 8-719-945-80 | DIODE ERC06-15S |
| D504 | 8-719-900-26 | DIODE ERD29-08J |
| D505 | 8-719-908-03 | DIODE GP08D |
| D506 | 8-719-908-03 | DIODE GP08D |
| D507 | 8-719-991-33 | DIODE 1SS133T-77 |

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D510 | 8-719-300-33 | DIODE RU-3AM | |
| D511 | 8-719-970-87 | DIODE ERA38-06 | |
| D512 | 8-719-970-87 | DIODE ERA38-06 | |
| D513 | 8-719-110-41 | DIODE RD15ESB2 | |
| D515 | 8-719-302-43 | DIODE EL1Z | |
| D516 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D518 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D519 ⚠ | 8-719-302-43 | DIODE EL1Z | |
| D520 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D521 | 8-719-921-63 | DIODE MTZJ-7.5B | |
| D522 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D530 | 8-719-979-85 | DIODE EGP20G | |
| D531 | 8-719-979-85 | DIODE EGP20G | |
| D534 | 8-719-302-43 | DIODE EL1Z | |
| D561 | 8-719-908-03 | DIODE GP08D | |
| D1001 | 8-719-404-49 | DIODE MA111 | |
| D1002 | 8-719-404-49 | DIODE MA111 | |
| D1003 | 8-719-110-17 | DIODE RD10ESB2 | |
| D1004 | 8-719-110-17 | DIODE RD10ESB2 | |
| D1102 | 8-719-982-24 | DIODE MTZJ-33A | |
| D1103 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D1104 | 8-719-110-17 | DIODE RD10ESB2 | |
| D1105 | 8-719-110-17 | DIODE RD10ESB2 | |
| D1301 | 8-719-404-49 | DIODE MA111 | |
| D1302 | 8-719-991-33 | DIODE SS133T-77 | |
| D1304 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D1305 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D1306 | 8-719-404-49 | DIODE MA111 | |

**DELAY LINE**

| | | |
|---|---|---|
| DL351 | 1-416-231-11 | DELAY LINE |

**FERRITE BEAD**

| | | | |
|---|---|---|---|
| FB501 | 1-410-397-21 | FERRITE | 1.1UH |
| FB502 | 1-410-397-21 | FERRITE | 1.1UH |
| FB503 | 1-410-397-21 | FERRITE | 1.1UH |

**IC**

| | | |
|---|---|---|
| IC001 | 8-752-886-53 | IC CXP85856A-001S |
| IC002 | 8-759-353-44 | IC ST24C08FM6TR |
| IC351 | 8-752-082-73 | IC CXA2095S |
| IC352 | 8-752-080-75 | IC CXA2039M-T6 |
| IC353 | 8-759-462-91 | IC TA1226N |
| IC501 | 8-759-700-07 | IC NJM2903M |
| IC561 | 8-759-192-71 | IC STV9379 |
| IC1001 | 8-752-058-68 | IC CXA1315M |

**CONDUCTOR**

| | | | |
|---|---|---|---|
| JR001 | 1-216-295-91 | SHORT | 0 |

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| REF.NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| JR002 | 1-216-295-91 | SHORT | 0 | |
| JR003 | 1-216-295-91 | SHORT | 0 | |
| JR052 | 1-216-295-91 | SHORT | 0 | |
| JR053 | 1-216-295-91 | SHORT | 0 | |
| JR054 | 1-216-295-91 | SHORT | 0 | |
| JR1003 | 1-216-295-91 | SHORT | 0 | |
| JR4120 | 1-216-295-91 | SHORT | 0 | |
| | **COIL** | | | |
| L001 | 1-410-482-31 | INDUCTOR | 100UH | |
| L002 | 1-410-482-31 | INDUCTOR | 100UH | |
| L003 | 1-410-470-11 | INDUCTOR | 10UH | |
| L004 | 1-410-470-11 | INDUCTOR | 10UH | |
| L351 | 1-410-476-11 | INDUCTOR | 33UH | |
| L352 | 1-410-482-31 | INDUCTOR | 100UH | |
| L502 | 1-412-552-11 | INDUCTOR | 2.2MMH | |
| L503 | 1-406-677-11 | INDUCTOR | | |
| L504 | 1-406-677-11 | INDUCTOR | | |
| L505 | 1-406-976-11 | INDUCTOR | | |
| L511 | 1-411-189-11 | INDUCTOR | | |
| L517 | 1-412-552-11 | INDUCTOR | 2.2MMH | |
| L1101 | 1-410-482-31 | INDUCTOR | 100UH | |
| L1102 | 1-410-470-11 | INDUCTOR | 100UH | |
| L1351 | 1-410-682-31 | INDUCTOR | 470UH | |
| | **TRANSISTOR** | | | |
| Q001 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q002 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q003 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q004 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q005 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q010 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q011 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q012 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q013 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q014 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q015 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q016 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q017 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q304 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q305 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q306 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q351 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q354 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q356 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q357 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q358 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |

| REF.NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| Q359 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q360 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q361 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q362 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q363 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q364 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q365 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q366 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q367 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q368 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q369 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q370 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q501 | 8-729-140-50 | TRANSISTOR | 2SC3209LK | |
| Q502 ⚠ | 8-729-045-26 | TRANSISTOR | 2SD2580-CA | |
| Q503 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q504 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q507 | 8-729-043-95 | TRANSISTOR | 2SC3840(3) | |
| Q511 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q512 | 8-729-809-29 | TRANSISTOR | 2SC4159-E | |
| Q561 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q562 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q1001 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q1102 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE | |
| Q1103 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q1351 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q1352 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q1353 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q1354 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| | **RESISTOR** | | | |
| R001 | 1-216-057-00 | RESISTOR | 2.2K 5% | 1/10W |
| R002 | 1-216-049-91 | RESISTOR | 1K 5% | 1/10W |
| R003 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R004 | 1-216-121-91 | RESISTOR | 1M 5% | 1/10W |
| R006 | 1-247-815-91 | CARBON | 220 5% | 1/4W |
| R007 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R008 | 1-247-815-91 | CARBON | 220 5% | 1/4W |
| R009 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R010 | 1-216-041-00 | RESISTOR | 470 5% | 1/10W |
| R011 | 1-216-065-91 | RESISTOR | 4.7K 5% | 1/10W |
| R012 | 1-216-033-00 | RESISTOR | 220 5% | 1/10W |
| R013 | 1-216-065-91 | RESISTOR | 4.7K 5% | 1/10W |
| R014 | 1-216-065-91 | RESISTOR | 4.7K 5% | 1/10W |
| R015 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R016 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R019 | 1-249-425-11 | CARBON | 4.7K 5% | 1/4W |
| R020 | 1-216-065-91 | RESISTOR | 4.7K 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R022 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R023 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R025 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R026 | 1-216-121-91 | RESISTOR | 1M | 5% | 1/10W |
| R028 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R029 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R030 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R031 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R032 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R036 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R037 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R038 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R039 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R040 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R041 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R042 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R043 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R044 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R045 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R046 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R047 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R048 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R049 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R050 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R051 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R052 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R053 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R054 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R055 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R056 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R057 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R058 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R064 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R065 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R066 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R067 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R068 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R069 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R070 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R071 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R072 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R073 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R074 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R075 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R076 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R077 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R078 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R079 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R080 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R081 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R082 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R083 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R084 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R087 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R090 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R092 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R093 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R097 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R099 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R131 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R132 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R133 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R135 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R136 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R137 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R319 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R320 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R321 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R324 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R328 | 1-216-295-91 | SHORT | 0 | | |
| R333 | 1-216-295-91 | SHORT | 0 | | |
| R336 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R337 | 1-216-347-11 | METAL OXIDE | 0.68 | 5% | 1W F |
| R346 | 1-208-806-11 | RESISTOR | 10K | 0.50% | 1/10W |
| R347 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R348 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W F |
| R350 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R352 | 1-208-803-11 | RESISTOR | 7.5K | 0.50% | 1/10W |
| R353 | 1-208-788-11 | RESISTOR | 1.8K | 0.50% | 1/10W |
| R354 | 1-216-077-00 | RESISTOR | 15K | 5% | 1/10W |
| R355 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R356 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R358 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R359 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R360 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R361 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R362 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R363 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R364 | 1-208-836-11 | RESISTOR | 180K | 0.50% | 1/10W |
| R365 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R366 | 1-216-085-00 | RESISTOR | 33K | 5% | 1/10W |
| R367 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R368 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |

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**Note:** The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**Note:** The components identified with ⊠ have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R369 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R370 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R371 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R372 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R373 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R374 | 1-216-276-00 | RESISTOR | 1.8M | 5% | 1/8W |
| R375 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R376 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R378 | 1-216-083-00 | RESISTOR | 27K | 5% | 1/10W |
| R379 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R380 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R381 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R382 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R383 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R384 | 1-216-109-00 | RESISTOR | 330K | 5% | 1/10W |
| R385 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R386 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R387 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R388 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R389 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R390 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R391 | 1-208-810-11 | RESISTOR | 15K | 0.50% | 1/10W |
| R392 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R393 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R394 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R395 | 1-216-061-00 | RESISTOR | 3.3K | 5% | 1/10W |
| R396 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R397 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R398 | 1-216-095-00 | RESISTOR | 82K | 5% | 1/10W |
| R501 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R502 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R503 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R504 ⚠ | 1-216-455-21 | METAL OXIDE | 560 | 5% | 2W F |
| R505 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W |
| R506 | 1-215-861-00 | METAL OXIDE | 47 | 5% | 1W F |
| R507 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R508 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R509 | 1-260-324-11 | CARBON | 470 | 5% | 1/2W |
| R510 ⚠ | 1-215-860-11 | METAL OXIDE | 33 | 5% | 1W F |
| R511 ⚠ | 1-215-885-00 | METAL OXIDE | 68 | 5% | 2W F |
| | | | | | (KV-32FV1/34FVL1) |
| R511 ⚠ | 1-215-886-11 | METAL OXIDE | 100 | 5% | 2W F |
| | | | | | (KV-36FV1) |
| R512 ⚠ | 1-215-886-11 | METAL OXIDE | 100 | 5% | 2W F |
| R514 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R515 | 1-208-812-11 | RESISTOR | 18K | 0.50% | 1/10W |
| R516 | 1-208-790-11 | RESISTOR | 2.2K | 0.50% | 1/10W |
| R517 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R518 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R519 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R521 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R523 | 1-208-806-11 | RESISTOR | 10K | 0.50% | 1/10W |
| R524 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R525 | 1-208-804-11 | RESISTOR | 8.2K | 0.50% | 1/10W |
| R526 | 1-215-880-00 | METAL OXIDE | 10K | 5% | 2W F |
| | | | | | (KV-36FV1) |
| R527 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R528 | 1-208-814-11 | RESISTOR | 22K | 0.50% | 1/10W |
| R529 | 1-208-814-11 | RESISTOR | 22K | 0.50% | 1/10W |
| ⊠ R530 ⚠ | 1-208-808-11 | RESISTOR | 12K | 0.50% | 1/10W |
| ⊠ R531 ⚠ | 1-208-824-11 | RESISTOR | 56K | 0.50% | 1/10W |
| R532 | 1-208-760-11 | RESISTOR | 120 | 0.50% | 1/10W |
| R533 ⚠ | 1-215-902-11 | METAL OXIDE | 47K | 5% | 1W F |
| | | | | | (KV-32FV1/34FVL1) |
| R533 ⚠ | 1-215-878-00 | METAL OXIDE | 33K | 5% | 1W F |
| | | | | | (KV-36FV1) |
| R535 | 1-208-840-11 | RESISTOR | 270K | 0.50% | 1/10W |
| R536 ⚠ | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R537 ⚠ | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R538 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R539 ⚠ | 1-215-891-11 | METAL OXIDE | 680 | 5% | 2W F |
| R541 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W F |
| R542 | 1-215-921-11 | METAL OXIDE | 4.7K | 5% | 3W F |
| R543 ⚠ | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W F |
| R544 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R545 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R546 | 1-215-453-00 | METAL | 22K | 1% | 1/4W |
| R547 | 1-215-457-00 | METAL | 33K | 1% | 1/4W |
| R548 | 1-215-921-11 | METAL OXIDE | 4.7K | 5% | 3W F |
| R549 | 1-215-437-00 | METAL | 4.7K | 1% | 1/4W |
| R550 ⚠ | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W F |
| R551 ⚠ | 1-215-873-00 | METAL OXIDE | 4.7K | 5% | 1W F |
| R552 ⚠ | 1-216-455-21 | METAL OXIDE | 560 | 5% | 2W F |
| R553 ⚠ | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W F |
| R554 | 1-215-894-11 | METAL OXIDE | 2.2K | 5% | 2W F |
| R555 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R556 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R557 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R560 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W F |
| R561 | 1-208-806-11 | RESISTOR | 10K | 0.50% | 1/10W |
| R563 ⚠ | 1-216-349-00 | METAL OXIDE | 1 | 5% | 1W F |
| R564 | 1-215-373-31 | METAL | 10 | 1% | 1/4W |
| R565 ⚠ | 1-215-889-00 | METAL OXIDE | 330 | 5% | 2W F |
| R566 | 1-208-802-11 | RESISTOR | 6.8K | 0.50% | 1/10W |
| R567 ⚠ | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W F |
| R568 | 1-208-802-11 | RESISTOR | 6.8K | 0.50% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R569 | 1-208-806-11 | RESISTOR | 10K | 0.50% | 1/10W |
| R570 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R571 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R572 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R573 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R580 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R1001 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1002 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1003 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1004 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R1005 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1006 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1007 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1008 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1009 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1010 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1011 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R1012 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1101 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1102 | 1-215-900-11 | METAL OXIDE | 22K | 5% | 2W F |
| R1103 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1104 | 1-216-083-00 | RESISTOR | 27K | 5% | 1/10W |
| R1105 | 1-216-689-11 | RESISTOR | 39K | 5% | 1/10W |
| R1106 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1107 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1108 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1109 | 1-216-017-91 | RESISTOR | 47 | 5% | 1/10W |
| R1110 | 1-216-017-91 | RESISTOR | 47 | 5% | 1/10W |
| R1111 | 1-216-017-91 | RESISTOR | 47 | 5% | 1/10W |
| R1113 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1114 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1115 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R1117 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R1118 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R1120 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1121 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R1122 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1123 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R1125 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1126 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R1127 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1128 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R1129 | 1-216-295-91 | SHORT | 0 | | |
| R1130 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1301 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R1302 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R1303 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1304 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1305 | 1-216-091-00 | RESISTOR | 56K | 5% | 1/10W |
| R1306 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1307 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1308 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1309 | 1-216-051-00 | RESISTOR | 1.2K | 5% | 1/10W |
| R1310 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1311 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1312 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1313 | 1-208-780-11 | RESISTOR | 820 | 0.50% | 1/10W |
| R1314 | 1-208-782-11 | RESISTOR | 1K | 0.50% | 1/10W |
| R1315 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1316 | 1-216-091-00 | RESISTOR | 56K | 5% | 1/10W |
| R1317 | 1-216-105-91 | RESISTOR | 220K | 5% | 1/10W |
| R1318 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1319 | 1-260-290-71 | CARBON | 0.68 | 5% | 1/2W |
| R1322 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1323 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1326 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1329 | 1-216-295-91 | SHORT | 0 | | |
| R1330 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1333 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1337 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1351 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R1352 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R1353 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R1354 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R1355 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1356 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1357 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1358 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1359 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1360 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1361 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1362 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1363 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1364 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1365 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1366 | 1-216-107-00 | RESISTOR | 270K | 5% | 1/10W |
| R1369 | 1-216-093-00 | RESISTOR | 68K | 5% | 1/10W |
| R1371 | 1-216-295-91 | SHORT | 0 | | |
| R1373 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1374 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1385 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1386 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1387 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R1388 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |

A AX

**Note:** The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**Note:** Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1389 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1390 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1391 | 1-216-091-00 | RESISTOR | 56K | 5% | 1/10W |
| R1392 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1393 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1394 | 1-208-785-11 | RESISTOR | 1.3K | 0.50% | 1/10W |
| R1395 | 1-208-782-11 | RESISTOR | 1K | 0.50% | 1/10W |
| R1396 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1397 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1398 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1399 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |

**SWITCH**

| | | | |
|---|---|---|---|
| S501 | 1-572-707-11 | SWITCH, LEVER | |
| S502 | 1-572-707-11 | SWITCH, LEVER | |

**TRANSFORMER**

| | | | |
|---|---|---|---|
| T501 | 1-437-195-11 | TRANSFORMER, HORIZONTAL DRIVE | |
| T502 ⚠ | 1-426-981-11 | TRANSFORMER, FERRITE (PMT) | |
| T503 ⚠ | 1-453-282-11 | TRANSFORMER, FBT ASSY (NX-4600//X4C) | (KV-32FV1/34FVL1) |
| T503 ⚠ | 1-453-286-11 | TRANSFORMER, FBT ASSY (NX-4600//X4C4) | (KV-36FV1) |
| T504 | 1-424-584-11 | TRANSFORMER, DYNAMIC FOCUS | |
| T505 ⚠ | 1-429-188-11 | TRANSFORMER, HORIZONTAL LINEAR | |

**TUNER**

| | | | |
|---|---|---|---|
| TU102⚠ | 8-598-431-00 | TUNER, FSS BTF-WA411 | |

**CRYSTAL**

| | | | |
|---|---|---|---|
| X001 | 1-578-774-11 | VIBRATOR, CRYSTAL | |
| X353 | 1-567-505-11 | OSCILLATOR, CRYSTAL | |
| X354 | 1-579-583-11 | VIBRATOR, CERAMIC CHIP | |

## AX

*** A-1298-641-A AX BOARD, COMPLETE**

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C101 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C102 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C104 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C106 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C108 | 1-126-942-61 | ELECT | 1000MF | 20% | 25V |
| C109 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C110 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C111 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C113 | 1-104-666-11 | ELECT | 220MF | 20% | 25V |
| C115 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1904 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1905 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1906 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1907 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1908 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1909 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1910 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1911 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1912 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN101 | 1-573-301-21 | CONNECTOR, BOARD TO BOARD | 20P |
| CN102 | 1-573-979-21 | CONNECTOR, BOARD TO BOARD | 11P |
| CN103 | *1-564-507-11 | PLUG, CONNECTOR | 4P |

**DIODE**

| | | |
|---|---|---|
| D101 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D103 | 8-719-991-33 | DIODE 1SS133T-77 |
| D104 | 8-719-991-33 | DIODE 1SS133T-77 |
| D105 | 8-719-991-33 | DIODE 1SS133T-77 |
| D106 | 8-719-991-33 | DIODE 1SS133T-77 |
| D107 | 8-719-991-33 | DIODE 1SS133T-77 |
| D108 | 8-719-110-17 | DIODE RD10ESB2 |
| D109 | 8-719-110-17 | DIODE RD10ESB2 |

**IC**

| | | |
|---|---|---|
| IC1901 | 8-752-058-68 | IC CXA1315M |
| IC1902 | 8-759-470-63 | IC NJM2145M-TE2 |

**CONDUCTOR**

| | | | |
|---|---|---|---|
| JR101 | 1-216-295-91 | SHORT | 0 |
| JR1901 | 1-216-295-91 | SHORT | 0 |

**COIL**

| | | | |
|---|---|---|---|
| L102 | 1-410-470-11 | INDUCTOR | 10UH |
| L105 | 1-410-482-31 | INDUCTOR | 100UH |

**TRANSISTOR**

| | | |
|---|---|---|
| Q101 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| Q103 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q104 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q105 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q106 | 8-729-422-27 | TRANSISTOR 2SD601A-Q |
| Q1902 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q1903 | 8-729-216-22 | TRANSISTOR 2SA1162-G |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| Q1918 | 8-729-216-22 | TRANSISTOR 2SA1162-G | | | |
| | **RESISTOR** | | | | |
| R101 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R102 | 1-216-083-00 | RESISTOR | 27K | 5% | 1/10W |
| R103 | 1-216-689-11 | RESISTOR | 39K | 5% | 1/10W |
| R104 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R106 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R107 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R108 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R109 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R112 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R113 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R114 | 1-216-121-91 | RESISTOR | 1M | 5% | 1/10W |
| R115 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R116 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R117 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1905 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1906 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1920 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2904 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R2905 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R2909 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2910 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2912 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R2913 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2914 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2915 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2916 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| | **TUNER** | | | | |
| TU101 ⚠ | 8-598-430-00 | TUNER, FSS BTF-FA401 | | | |

## B

* **A-1135-959-A B BOARD, COMPLETE**

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C3501 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3502 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C3503 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3504 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3505 | 1-163-131-00 | CERAMIC CHIP | 390PF | 5% | 50V |
| C3506 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3507 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C3508 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3509 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C3510 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C3511 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C3512 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C3513 | 1-163-131-00 | CERAMIC CHIP | 390PF | 5% | 50V |
| C3514 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C3515 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C3516 | 1-163-089-00 | CERAMIC CHIP | 6PF | 5% | 50V |
| C3517 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3518 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C3519 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3520 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C3521 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3522 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3536 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3537 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C3538 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3539 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3540 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C3541 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3542 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3543 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3544 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3547 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3548 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C3550 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3553 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C3556 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3557 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3558 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3559 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3560 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3561 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3562 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3563 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3564 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3565 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3566 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3567 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3568 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3569 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3570 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3571 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3574 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3575 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3576 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C3577 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C3578 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |

B

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| | **CONNECTOR** | | |
| CN3501 | 1-573-978-21 | CONNECTOR, BOARD TO BOARD | 11P |
| CN3502 | 1-573-297-21 | CONNECTOR, BOARD TO BOARD | 18P |
| | **FERRITE BEAD** | | |
| FB3501 | 1-216-295-91 | SHORT 0 | |
| | **FILTER** | | |
| FL3501 | 1-239-847-11 | FILTER, LOW PASS | |
| FL3502 | 1-239-847-11 | FILTER, LOW PASS | |
| FL3503 | 1-239-847-11 | FILTER, LOW PASS | |
| | **IC** | | |
| IC3501 | 8-759-065-82 | IC MM1093ND | |
| IC3503 | 8-759-701-56 | IC NJM78M05FA | |
| IC3504 | 8-752-390-37 | IC CXD2064Q-T6 | |
| | **CONDUCTOR** | | |
| JR3501 | 1-216-295-91 | SHORT 0 | |
| JR3502 | 1-216-295-91 | SHORT 0 | |
| JR3503 | 1-216-295-91 | SHORT 0 | |
| JR3504 | 1-216-295-91 | SHORT 0 | |
| JR3505 | 1-216-295-91 | SHORT 0 | |
| JR3506 | 1-216-295-91 | SHORT 0 | |
| JR3507 | 1-216-295-91 | SHORT 0 | |
| JR3512 | 1-216-295-91 | SHORT 0 | |
| JR3513 | 1-216-295-91 | SHORT 0 | |
| JR3514 | 1-216-295-91 | SHORT 0 | |
| | **COIL** | | |
| L3501 | 1-410-470-11 | INDUCTOR 10UH | |
| L3502 | 1-410-466-41 | INDUCTOR 4.7UH | |
| L3503 | 1-408-607-31 | INDUCTOR 22UH | |
| L3504 | 1-410-470-11 | INDUCTOR 10UH | |
| L3505 | 1-410-470-11 | INDUCTOR 10UH | |
| | **TRANSISTOR** | | |
| Q3501 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q3502 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3503 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q3504 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3505 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q3506 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3507 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3508 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q3509 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3510 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3511 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3513 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3514 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q3515 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q3517 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| | **RESISTOR** | | |
| R3501 | 1-216-081-00 | RESISTOR 22K 5% | 1/10W |
| R3502 | 1-216-081-00 | RESISTOR 22K 5% | 1/10W |
| R3503 | 1-216-295-91 | SHORT 0 | |
| R3504 | 1-216-033-00 | RESISTOR 220 5% | 1/10W |
| R3505 | 1-216-033-00 | RESISTOR 220 5% | 1/10W |
| R3506 | 1-216-035-00 | RESISTOR 270 5% | 1/10W |
| R3507 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |
| R3508 | 1-216-043-91 | RESISTOR 560 5% | 1/10W |
| R3509 | 1-216-075-00 | RESISTOR 12K 5% | 1/10W |
| R3510 | 1-216-049-91 | RESISTOR 1K 5% | 1/10W |
| R3511 | 1-216-065-91 | RESISTOR 4.7K 5% | 1/10W |
| R3512 | 1-216-065-91 | RESISTOR 4.7K 5% | 1/10W |
| R3513 | 1-216-041-00 | RESISTOR 470 5% | 1/10W |
| R3514 | 1-216-121-91 | RESISTOR 1M 5% | 1/10W |
| R3515 | 1-216-077-00 | RESISTOR 15K 5% | 1/10W |
| R3516 | 1-216-037-00 | RESISTOR 330 5% | 1/10W |
| R3517 | 1-216-077-00 | RESISTOR 15K 5% | 1/10W |
| R3518 | 1-216-067-00 | RESISTOR 5.6K 5% | 1/10W |
| R3519 | 1-216-295-91 | SHORT 0 | |
| R3525 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |
| R3527 | 1-216-033-00 | RESISTOR 220 5% | 1/10W |
| R3536 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |
| R3537 | 1-216-043-91 | RESISTOR 560 5% | 1/10W |
| R3538 | 1-216-071-00 | RESISTOR 8.2K 5% | 1/10W |
| R3539 | 1-216-089-91 | RESISTOR 47K 5% | 1/10W |
| R3540 | 1-216-049-91 | RESISTOR 1K 5% | 1/10W |
| R3541 | 1-216-081-00 | RESISTOR 22K 5% | 1/10W |
| R3542 | 1-216-041-00 | RESISTOR 470 5% | 1/10W |
| R3543 | 1-216-029-00 | RESISTOR 150 5% | 1/10W |
| R3544 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |
| R3545 | 1-216-043-91 | RESISTOR 560 5% | 1/10W |
| R3546 | 1-216-071-00 | RESISTOR 8.2K 5% | 1/10W |
| R3547 | 1-216-089-91 | RESISTOR 47K 5% | 1/10W |
| R3548 | 1-216-081-00 | RESISTOR 22K 5% | 1/10W |
| R3549 | 1-216-049-91 | RESISTOR 1K 5% | 1/10W |
| R3550 | 1-208-774-11 | RESISTOR 470 0.50% | 1/10W |
| R3551 | 1-208-762-11 | RESISTOR 150 0.50% | 1/10W |
| R3558 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |
| R3559 | 1-216-057-00 | RESISTOR 2.2K 5% | 1/10W |

**Note:** The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**Note:** Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

B G

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R3566 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3567 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3568 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3569 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3570 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3571 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3572 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3573 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R3574 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3575 | 1-216-051-00 | RESISTOR | 1.2K | 5% | 1/10W |
| R3576 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3577 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R3578 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R3579 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R3582 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R3583 | 1-216-061-00 | RESISTOR | 3.3K | 5% | 1/10W |
| R3584 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R3585 | 1-216-061-00 | RESISTOR | 3.3K | 5% | 1/10W |
| R3586 | 1-216-295-91 | SHORT | 0 | | |
| R3590 | 1-216-295-91 | SHORT | 0 | | |
| R3591 | 1-216-295-91 | SHORT | 0 | | |
| R3594 | 1-216-295-91 | SHORT | 0 | | |
| R3595 | 1-216-295-91 | SHORT | 0 | | |
| R3598 | 1-216-295-91 | SHORT | 0 | | |

**CRYSTAL**

| | | |
|---|---|---|
| X3501 | 1-567-505-11 | OSCILLATOR, CRYSTAL |

G

* **A-1316-397-A G BOARD, COMPLETE**

| | |
|---|---|
| 1-533-223-11 | HOLDER, FUSE |
| 4-382-854-11 | SCREW (M3X10),P, SW (+) |

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C601 | 1-136-346-21 | FILM | 0.22MF | 20% | 125V |
| C602 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C603 ⚠ | 1-113-903-11 | CERAMIC CHIP | 0.001MF | 20% | 250V |
| C604 ⚠ | 1-136-346-21 | FILM | 0.22MF | 20% | 125V |
| C605 ⚠ | 1-136-346-21 | FILM | 0.22MF | 20% | 125V |
| C606 ⚠ | 1-117-894-11 | ELECT | 560MF | 20% | 250V |
| C607 ⚠ | 1-117-894-11 | ELECT | 560MF | 20% | 250V |
| C608 | 1-107-824-11 | CERAMIC CHIP | 220PF | 5% | 1KV |
| C609 | 1-136-176-00 | FILM | 0.82MF | 5% | 50V |
| C610 | 1-136-176-00 | FILM | 0.82MF | 5% | 50V |
| C611 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |
| C612 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |
| C613 | 1-164-646-11 | CERAMIC CHIP | 2200PF | 10% | 500V |
| C614 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C615 | 1-117-976-11 | FILM | 0.039MF | 5% | 800V |
| C616 ⚠ | 1-113-903-11 | CERAMIC CHIP | 0.001MF | 20% | 250V |
| C618 | 1-126-968-11 | ELECT | 100MF | 20% | 50V |
| C624 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C629 ⚠ | 1-107-652-11 | ELECT | 10MF | 20% | 250V |
| C630 | 1-130-471-00 | MYLAR | 0.001MF | 5% | 50V |
| C631 | 1-137-605-11 | FILM | 0.01MF | 10% | 250V |
| C633 | 1-130-471-00 | MYLAR | 0.001MF | 5% | 50V |
| C634 | 1-130-467-00 | MYLAR | 470PF | 5% | 50V |
| C635 | 1-130-471-00 | MYLAR | 0.001MF | 5% | 50V |
| C636 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C637 | 1-126-940-11 | ELECT | 330MF | 20% | 25V |
| C641 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C643 | 1-107-995-11 | ELECT | 100MF | | 160V |
| C644 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C647 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C650 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C651 | 1-130-477-00 | MYLAR | 0.0033MF | 5% | 50V |
| C652 | 1-106-351-00 | MYLAR | 0.0022MF | 99% | 200V |
| C653 | 1-107-636-11 | ELECT | 10MF | 20% | 160V |
| C656 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C657 | 1-137-372-11 | FILM | 0.022MF | 5% | 50V |
| C658 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C660 | 1-126-936-11 | ELECT | 3300MF | 20% | 16V |
| C661 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C662 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C665 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C695 | 1-164-625-11 | CERAMIC CHIP | 680PF | 10% | 500V |
| C696 | 1-164-625-11 | CERAMIC CHIP | 680PF | 10% | 500V |
| C697 | 1-164-625-11 | CERAMIC CHIP | 680PF | 10% | 500V |
| C698 | 1-164-625-11 | CERAMIC CHIP | 680PF | 10% | 500V |
| C699 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN601 | *1-573-963-11 | PIN, CONNECTOR (PC BOARD) | 3P |
| CN602 | *1-580-844-11 | PIN, CONNECTOR (POWER) | 2P |
| CN603 | *1-573-963-11 | PIN, CONNECTOR (PC BOARD) | 3P |
| CN641 | *1-564-515-11 | PLUG, CONNECTOR | 12P |
| CN642 | *1-564-509-11 | PLUG, CONNECTOR | 6P |
| CN643 | *1-508-786-00 | PIN, CONNECTOR (5MM PITCH) | 2P |

**DIODE**

| | | |
|---|---|---|
| D600 | 8-719-991-33 | DIODE 1SS133T-77 |
| D601 | 8-719-991-33 | DIODE 1SS133T-77 |
| D602 ⚠ | 8-719-510-53 | DIODE D4SB60L |

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**Note:** The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**Note:** Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D603 | 8-719-063-70 | DIODE D1NL20U | |
| D604 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D605 | 8-719-923-83 | DIODE MTZJ-T-77-13A | |
| D606 | 8-719-110-60 | DIODE RD24ESB | |
| D607 | 8-719-109-97 | DIODE RD6.8ESB2 | |
| D608 | 8-719-109-97 | DIODE RD6.8ESB2 | |
| D612 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D613 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D614 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D621 | 8-719-911-55 | DIODE U05G | |
| D622 | 8-719-911-55 | DIODE U05G | |
| D623 | 8-719-948-45 | DIODE ERA22-08 | |
| D624 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D625 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D626 | 8-719-109-93 | DIODE RD6.2ESB2 | |
| D627 | 8-719-510-48 | DIODE D1N20R | |
| D628 | 8-719-510-02 | DIODE D1NS4 | |
| D629 | 8-719-052-90 | DIODE D1NL40-TA2 | |
| D630 | 8-719-052-90 | DIODE D1NL40-TA2 | |
| D641 | 8-719-060-89 | DIODE D4SBS6-F | |
| D642 | 8-719-510-12 | DIODE D10SC4M | |
| D643 | 8-719-062-40 | DIODE D4SBL20UF3 | |
| D647 | 8-719-063-70 | DIODE D1NL20U | |
| D648 | 8-719-057-52 | DIODE EZ0150AV1 | |
| D651 | 8-719-510-02 | DIODE D1NS4 | |
| D652 | 8-719-510-02 | DIODE D1NS4 | |
| D653 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D698 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D699 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |

**FUSE**

| | | | |
|---|---|---|---|
| F601 ⚠ | 1-532-506-51 | FUSE | 6.3A/250V |

**FERRITE BEAD**

| | | | |
|---|---|---|---|
| FB601 | 1-410-396-41 | FERRITE | 0.45UH |
| FB602 | 1-410-396-41 | FERRITE | 0.45UH |
| FB603 | 1-410-396-41 | FERRITE | 0.45UH |
| FB604 | 1-410-396-41 | FERRITE | 0.45UH |
| FB641 | 1-410-397-21 | FERRITE | 1.1UH |
| FB642 | 1-410-397-21 | FERRITE | 1.1UH |
| FB645 | 1-410-397-21 | FERRITE | 1.1UH |
| FB647 | 1-410-397-21 | FERRITE | 1.1UH |

**IC**

| | | |
|---|---|---|
| IC601 ⚠ | 8-729-045-41 | TRANSISTOR MX0842B-F |
| IC622 | 8-759-450-47 | IC BA05T |
| IC641 | 8-759-198-03 | IC PQ09RF21 |
| IC643 | 8-749-012-13 | IC DM-58 |
| IC650 | 8-759-394-35 | IC BA12T |
| IC651 | 8-759-450-47 | IC BA05T |

**COIL**

| | | | |
|---|---|---|---|
| L642 | 1-412-529-11 | INDUCTOR | 22UH |
| L650 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L651 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L652 | 1-412-519-11 | INDUCTOR | 3.3UH |

**TRANSISTOR**

| | | |
|---|---|---|
| Q621 ⚠ | 8-729-044-30 | TRANSISTOR 2SK2845-LB102 |
| Q622 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| Q623 | 8-729-119-78 | TRANSISTOR SC2785-HFE |
| Q624 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q644 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| Q645 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q646 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q647 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| Q648 | 8-729-922-39 | TRANSISTOR 2SD2144S-V |
| Q649 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q650 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| Q651 | 8-729-802-71 | TRANSISTOR 2SA1407-E |
| Q652 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q653 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |

**RESISTOR**

| | | | | | | |
|---|---|---|---|---|---|---|
| R601 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R602 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R603 ⚠ | 1-219-776-11 | CARBON | 2.2M | 10% | 1/2W | |
| R604 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R605 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R606 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R607 ⚠ | 1-202-933-61 | FUSIBLE | 0.1 | 10% | 1/2W | F |
| R608 | 1-216-369-00 | METAL OXIDE | 1 | 5% | 2W | F |
| R609 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R610 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R611 | 1-216-369-00 | METAL OXIDE | 1 | 5% | 2W | F |
| R612 | 1-260-124-11 | CARBON | 120K | 5% | 1/2W | |
| R613 | 1-260-124-11 | CARBON | 120K | 5% | 1/2W | |
| R614 | 1-260-124-11 | CARBON | 120K | 5% | 1/2W | |
| R615 | 1-260-124-11 | CARBON | 120K | 5% | 1/2W | |
| R618 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R619 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R620 | 1-126-967-11 | ELECT | 47MF | 20% | 50V | |
| R621 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R622 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R623 ⚠ | 1-240-257-11 | REGISTER | 0 | | | |

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

G C

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R624 ⚠ | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R625 ⚠ | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R626 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R627 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W F |
| R631 | 1-240-205-91 | CARBON | 22M | 5% | 1/2W |
| R632 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R633 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R634 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R635 | 1-247-791-91 | CARBON | 22 | 5% | 1/4W |
| R636 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W |
| R637 | 1-260-302-51 | CARBON | 6.8 | 5% | 1/2W |
| R638 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R639 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W F |
| R640 | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R641 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R642 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R643 | 1-249-387-11 | CARBON | 3.3 | 5% | 1/4W F |
| R644 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R645 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R646 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R648 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R649 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F |
| R650 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R651 | 1-215-908-00 | METAL OXIDE | 33 | 5% | 3W F |
| R652 ⚠ | 1-216-363-00 | METAL OXIDE | 0.33 | 5% | 2W F |
| R653 | 1-215-423-00 | METAL | 1.2K | 1% | 1/4W |
| R654 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R655 | 1-215-469-00 | METAL | 100K | 1% | 1/4W |
| R656 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R657 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R659 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R660 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W F |
| R661 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W F |
| R662 | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R663 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R664 ⚠ | 1-240-257-11 | REGISTER | 0 | | |
| R665 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R670 | 1-260-312-11 | CARBON | 47 | 5% | 1/2W |
| R671 | 1-260-312-11 | CARBON | 47 | 5% | 1/2W |
| R680 | 1-216-364-11 | METAL OXIDE | 0.39 | 5% | 2W F |
| R681 | 1-216-365-00 | METAL OXIDE | 0.47 | 5% | 2W F |
| R699 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |

**RELAY**

| | | | |
|---|---|---|---|
| RY600 ⚠ | 1-755-266-11 | RELAY, AC POWER | |
| RY601 ⚠ | 1-755-146-11 | RELAY, AC POWER | |

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|

**TRANSFORMER**

| | | | |
|---|---|---|---|
| T601 ⚠ | 1-426-717-11 | TRANSFORMER, | LINE FILTER(LFT) |
| T602 ⚠ | 1-426-717-11 | TRANSFORMER, | LINE FILTER(LFT) |
| T603 ⚠ | 1-429-992-21 | TRANSFORMER, | CONVERTER (PRT) |
| T605 ⚠ | 1-433-408-11 | TRANSFORMER, | CONVERTER |
| T621 ⚠ | 1-431-852-11 | TRANSFORMER, | CONVERTER (SRT) |

**THERMISTOR**

| | | | |
|---|---|---|---|
| THP601⚠ | 1-809-539-11 | THERMISTOR, | POSITIVE |
| THP602⚠ | 1-809-539-11 | THERMISTOR, | POSITIVE |

**VARISTOR**

| | | |
|---|---|---|
| VDR602 ⚠ | 1-801-074-41 | VARISTOR ERZV10D271 |

## C

* **A-1335-103-A C BOARD, COMPLETE**

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C1761 | 1-102-508-91 | CERAMIC CHIP | 10PF | .5% | 50V |
| C1762 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1763 | 1-102-508-91 | CERAMIC CHIP | 10PF | .5% | 50V |
| C1764 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1765 | 1-102-508-91 | CERAMIC CHIP | 10PF | .5% | 50V |
| C1767 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1768 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1769 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1770 | 1-102-157-00 | CERAMIC CHIP | 560PF | 10% | 500V |
| C1771 | 1-107-957-11 | ELECT | 1MF | 20% | 250V |
| C1772 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1773 | 1-102-157-00 | CERAMIC CHIP | 560PF | 10% | 500V |
| C1774 | 1-107-957-11 | ELECT | 1MF | 20% | 250V |
| C1775 | 1-102-129-00 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1776 | 1-102-157-00 | CERAMIC CHIP | 560PF | 10% | 500V |
| C1777 | 1-107-957-11 | ELECT | 1MF | 20% | 250V |
| C1778 | 1-102-074-00 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1779 | 1-137-490-11 | FILM | 0.01MF | 10% | 1KV |
| C1783 | 1-106-375-12 | MYLAR | 0.022MF | 20% | 200V |
| C1784 | 1-106-375-12 | MYLAR | 0.022MF | 20% | 200V |
| C1786 | 1-107-651-11 | ELECT | 4.7MF | 20% | 250V |

C HF

| REF.NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| | **CONNECTOR** | | | |
| CN1761* | 1-564-509-11 | PLUG, CONNECTOR | 6P | |
| CN1763 | 1-695-915-11 | TAB (CONTACT) | | |
| CN1764* | 1-564-508-11 | PLUG, CONNECTOR | 5P | |
| | **DIODE** | | | |
| D1712 | 8-719-901-83 | DIODE 1SS83 | | |
| D1713 | 8-719-908-03 | DIODE GP08D | | |
| D1762 | 8-719-991-33 | DIODE 1SS133T-77 | | |
| D1763 | 8-719-991-33 | DIODE 1SS133T-77 | | |
| D1764 | 8-719-991-33 | DIODE 1SS133T-77 | | |
| D1767 | 8-719-109-89 | DIODE RD5.6ESB2 | | |
| D1768 | 8-719-991-33 | DIODE 1SS133T-77 | | |
| D1769 | 8-719-109-71 | DIODE RD3.9ESB1 | | |
| D1770 | 8-719-901-83 | DIODE 1SS83 | | |
| D1771 | 8-719-901-83 | DIODE 1SS83 | | |
| | **IC** | | | |
| IC1761 | 8-759-346-42 | IC TDA6101Q/N3 | | |
| IC1762 | 8-759-346-42 | IC TDA6101Q/N3 | | |
| IC1763 | 8-759-346-42 | IC TDA6101Q/N3 | | |
| | **JACK** | | | |
| J1761 ⚠ | 1-540-071-22 | SOCKET, CRT | | |
| | **COIL** | | | |
| L1761 | 1-410-470-11 | INDUCTOR | 10UH | |
| | **TRANSISTOR** | | | |
| Q1761 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE | |
| | **RESISTOR** | | | |
| R1761 | 1-215-413-00 | METAL | 470 | 1% 1/4W |
| R1762 | 1-215-413-00 | METAL | 470 | 1% 1/4W |
| R1763 | 1-215-424-00 | METAL | 1.3K | 1% 1/4W |
| R1764 | 1-249-441-11 | CARBON | 100K | 5% 1/4W |
| R1765 | 1-247-863-91 | CARBON | 22K | 5% 1/4W |
| R1766 | 1-215-424-00 | METAL | 1.3K | 1% 1/4W |
| R1767 | 1-249-437-11 | CARBON | 47K | 5% 1/4W |
| R1768 | 1-247-807-31 | CARBON | 100 | 5% 1/4W |
| R1769 | 1-249-417-11 | CARBON | 1K | 5% 1/4W |
| R1770 | 1-215-424-00 | METAL | 1.3K | 1% 1/4W |
| R1771 | 1-249-432-11 | CARBON | 18K | 5% 1/4W |
| R1772 | 1-249-421-11 | CARBON | 2.2K | 5% 1/4W |
| R1773 | 1-249-422-11 | CARBON | 2.7K | 5% 1/4W |
| R1774 | 1-215-903-11 | METAL OXIDE | 68K | 5% 2W F |
| R1775 | 1-249-422-11 | CARBON | 2.7K | 5% 1/4W |
| R1776 | 1-215-903-11 | METAL OXIDE | 68K | 5% 2W F |
| R1777 | 1-260-099-11 | CARBON | 1K | 5% 1/2W |
| R1778 | 1-249-422-11 | CARBON | 2.7K | 5% 1/4W |
| R1779 | 1-215-903-11 | METAL OXIDE | 68K | 5% 2W F |
| R1780 | 1-249-436-11 | CARBON | 39K | 5% 1/4W |
| R1781 | 1-260-099-11 | CARBON | 1K | 5% 1/2W |
| R1782 | 1-260-099-11 | CARBON | 1K | 5% 1/2W |
| R1783 | 1-260-087-11 | CARBON | 100 | 5% 1/2W |
| R1786 | 1-260-115-11 | CARBON | 22K | 5% 1/2W |
| R1787 | 1-216-374-00 | METAL OXIDE | 2.7 | 5% 2W F |
| R1788 | 1-260-132-11 | CARBON | 560K | 5% 1/2W |
| | **VARIABLE RESISTOR** | | | |
| RV1761 | 1-241-714-11 | RESISTOR ADJ | METAL FILM | 110M |

HF

*** A-1372-520-A HF BOARD, MOUNTED**

| | | | | |
|---|---|---|---|---|
| | **CAPACITOR** | | | |
| C1234 | 1-126-960-11 | ELECT | 1MF | 20% 50V |
| C1235 | 1-126-960-11 | ELECT | 1MF | 20% 50V |
| C2001 | 1-104-665-11 | ELECT | 100MF | 20% 25V |
| | **CONNECTOR** | | | |
| CN1232 | 1-564-524-11 | PLUG, CONNECTOR | 9P | |
| CN2001* | 1-564-520-11 | PLUG, CONNECTOR | 5P | |
| | **DIODE** | | | |
| D1233 | 8-719-110-17 | DIODE RD10ESB2 | | |
| D2002 | 8-719-057-09 | DIODE LNJ801LPDJA | | |
| D2003 | 8-719-057-09 | DIODE LNJ801LPDJA | | |
| | **IC** | | | |
| IC2001 | 8-742-014-11 | ICSBX1981-51 | | |
| | **JACK** | | | |
| J1231 | 1-691-110-11 | JACK, PIN | 3P | |
| J1232 | 1-694-063-11 | TERMINAL, S | | |
| | **RESISTOR** | | | |
| R1233 | 1-216-065-91 | RESISTOR | 4.7K | 5% 1/10W |
| R1235 | 1-216-065-91 | RESISTOR | 4.7K | 5% 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1236 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1237 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1238 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R2001 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R2002 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R2003 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |

## HX

*** A-1372-532-A HX (VAR) MOUNTED PC BOARD**

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN2002* | 1-564-518-11 | PLUG, CONNECTOR | 3P |

**RESISTOR**

| | | | | | |
|---|---|---|---|---|---|
| R2010 | 1-216-047-91 | RESISTOR | 820 | 5% | 1/10W |
| R2011 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R2012 | 1-216-055-00 | RESISTOR | 1.8K | 5% | 1/10W |
| R2013 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R2014 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2015 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |

**SWITCH**

| | | |
|---|---|---|
| S2001 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2002 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2003 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2004 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2005 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2006 | 1-572-198-11 | SWITCH, KEYBOARD |
| S2007 | 1-572-198-11 | SWITCH, KEYBOARD |

## WA

*** A-1372-580-A WA BOARD, MOUNTED (KV-32FV1/34FVL1)**
*** A-1372-581-A WA BOARD, MOUNTED (KV-36FV1)**

4-382-854-11 SCREW (M3X10), P, SW (+)

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C941 | 1-126-942-61 | ELECT | 1000MF | 20% | 25V |
| C944 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C946 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C949 | 1-161-830-00 | CERAMIC CHIP | 0.0047MF | | 500V |
| C950 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C951 | 1-107-637-11 | ELECT | 22MF | 20% | 160V |
| C952 | 1-104-999-11 | MYLAR | 0.1MF | 10% | 200V |
| C953 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V |
| C954 | 1-137-364-11 | FILM | 0.001MF | 5% | 50V |
| C955 | 1-107-667-11 | ELECT | 2.2MF | 20% | 160V |
| C956 | 1-137-364-11 | FILM | 0.001MF | 5% | 50V |
| C957 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V |
| C958 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C963 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C964 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C965 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C966 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C967 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C968 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C970 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C971 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C972 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C973 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C974 | 1-137-370-11 | FILM | 0.01MF | 5% | 50V |
| C976 | 1-130-967-00 | FILM | 0.0027MF | 5% | 50V |
| C977 | 1-104-760-11 | CERAMIC CHIP | 0.047MF | 10% | 50V |
| C981 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C983 | 1-137-366-11 | FILM | 0.0022MF | 5% | 50V |
| C984 | 1-107-713-11 | ELECT | 4.7MF | 20% | 35V |
| C1941 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C1948 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C1961 | 1-129-725-00 | FILM | 0.082MF | 5% | 400V |
| C1962 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1965 | 1-136-601-11 | FILM | 0.01MF | 10% | 630V |
| C1966 | 1-137-378-11 | FILM | 0.22MF | 5% | 50V |
| C1968 | 1-137-378-11 | FILM | 0.22MF | 5% | 50V |
| C1969 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C1972 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C1974 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C1976 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | 50V | |

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN941 | * 1-564-511-11 | PLUG, CONNECTOR | 8P |
| CN942 | * 1-564-509-11 | PLUG, CONNECTOR | 6P |
| CN961 | * 1-770-723-11 | CONNECTOR, BOARD TO BOARD | 8P |
| CN981 | * 1-564-506-11 | PLUG, CONNECTOR | 3P |
| CN982 | * 1-564-507-11 | PLUG, CONNECTOR | 4P |

**DIODE**

| | | |
|---|---|---|
| D941 | 8-719-991-33 | DIODE 1SS133T-77 |
| D946 | 8-719-110-88 | DIODE RD39ESB2 |
| D947 | 8-719-110-88 | DIODE RD39ESB2 |
| D962 | 8-719-991-33 | DIODE 1SS133T-77 |
| D963 | 8-719-404-49 | DIODE MA111 |
| D964 | 8-719-210-21 | DIODE 11EQS04 |

WA

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D966 | 8-719-302-43 | DIODE EL1Z | |
| D968 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D969 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D1961 | 8-719-991-33 | DIODE1SS133T-77 | |
| D1962 | 8-719-991-33 | DIODE 1SS133T-77 | |
| | **IC** | | |
| IC961 | 8-752-074-64 | IC CXA2026AS | |
| IC962 | 8-759-729-03 | IC NJM2903D | |
| IC963 | 8-759-729-03 | IC NJM2903D | |
| IC964 | 8-759-700-42 | IC NJM2904D | |
| IC965 | 8-759-701-59 | IC NJM78M09FA | |
| IC981 | 8-759-603-37 | IC M5216P | |
| | **COIL** | | |
| L961 | 1-459-111-00 | INDUCTOR | |
| L964 | 1-406-989-21 | INDUCTOR | |
| | **TRANSISTOR** | | |
| Q943 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q944 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q945 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q946 | 8-729-017-05 | TRANSISTOR 2SA1837 | |
| Q947 | 8-729-017-06 | TRANSISTOR 2SC4793 | |
| Q961 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q962 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q963 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q965 | 8-729-931-45 | TRANSISTOR IRF614 | |
| Q966 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q967 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| Q968 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q969 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q981 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | |
| Q1961 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| | **RESISTOR** | | |
| R943 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R948 | 1-216-049-91 | RESISTOR 1K 5% 1/10W | |
| R949 | 1-216-057-00 | RESISTOR 2.2K 5% 1/10W | |
| R950 | 1-216-049-91 | RESISTOR 1K 5% 1/10W | |
| R951 | 1-216-049-91 | RESISTOR 1K 5% 1/10W | |
| R952 | 1-216-041-00 | RESISTOR 470 5% 1/10W | |
| R953 | 1-216-021-00 | RESISTOR 68 5% 1/10W | |
| R954 | 1-216-033-00 | RESISTOR 220 5% 1/10W | |
| R955 | 1-216-047-91 | RESISTOR 820 5% 1/10W | |
| R956 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R957 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R958 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| R959 | 1-216-021-00 | RESISTOR 68 5% 1/10W | |
| R961 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R962 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R963 | 1-216-091-00 | RESISTOR 56K 5% 1/10W | |
| R964 | 1-216-109-00 | RESISTOR 330K 5% 1/10W | |
| R965 | 1-216-089-91 | RESISTOR 47K 5% 1/10W | |
| R966 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R967 | 1-216-089-91 | RESISTOR 47K 5% 1/10W | |
| R968 | 1-216-083-00 | RESISTOR 27K 5% 1/10W | |
| R969 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R970 | 1-208-832-11 | RESISTOR 120K 0.50% 1/10W | |
| R971 | 1-216-049-91 | RESISTOR 1K 5% 1/10W | |
| R972 | 1-216-065-91 | RESISTOR 4.7K 5% 1/10W | |
| R973 | 1-216-057-00 | RESISTOR 2.2K 5% 1/10W | |
| R974 | 1-208-808-11 | RESISTOR 12K 0.50% 1/10W | |
| R975 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R976 | 1-216-057-00 | RESISTOR 2.2K 5% 1/10W | |
| R977 | 1-249-401-11 | CARBON 47 5% 1/4W F | |
| R978 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R979 | 1-216-017-91 | RESISTOR 47 5% 1/10W | |
| R980 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R981 | 1-216-085-00 | RESISTOR 33K 5% 1/10W | |
| R982 | 1-216-081-00 | RESISTOR 22K 5% 1/10W | |
| R983 | 1-216-077-00 | RESISTOR 15K 5% 1/10W | |
| R984 | 1-216-069-00 | RESISTOR 6.8K 5% 1/10W | |
| R985 | 1-215-421-00 | METAL 1K 1% 1/4W | |
| R987 | 1-216-049-91 | RESISTOR 1K 5% 1/10W | |
| R988 | 1-215-429-00 | METAL 2.2K 1% 1/4W | |
| R989 | 1-208-806-11 | RESISTOR 10K 0.50% 1/10W | |
| R990 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R991 | 1-208-800-11 | RESISTOR 5.6K 0.50% 1/10W | |
| R992 | 1-216-073-00 | RESISTOR 10K 5% 1/10W | |
| R993 | 1-216-025-91 | RESISTOR 100 5% 1/10W | |
| R1941 | 1-260-312-11 | CARBON 47 5% 1/2W | |
| R1942 | 1-249-387-11 | CARBON 3.3 5% 1/4W F | |
| R1943 | 1-249-414-11 | CARBON 560 5% 1/4W F | |
| R1944 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R1945 | 1-215-914-11 | METAL OXIDE 330 5% 3W F | |
| R1946 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R1947 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R1948 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R1949 | 1-249-387-11 | CARBON 3.3 5% 1/4W F | |
| R1950 | 1-249-401-11 | CARBON 47 5% 1/4W F | |
| R1960 | 1-216-037-00 | RESISTOR 330 5% 1/10W | |
| R1962 | 1-216-065-91 | RESISTOR 4.7K 5% 1/10W | |
| R1963 | 1-216-033-00 | RESISTOR 220 5% 1/10W | |
| R1964 | 1-216-057-00 | RESISTOR 2.2K 5% 1/10W | |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1967 | 1-215-489-00 | METAL | 680K | 1% | 1/4W |
| R1969 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1970 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1971 | 1-216-121-91 | RESISTOR | 1M | 5% | 1/10W |
| R1972 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1973 | 1-216-035-00 | RESISTOR | 270 | 5% | 1/10W |
| R1974 | 1-216-077-00 | RESISTOR | 15K | 5% | 1/10W |
| R1978 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1980 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R2962 | 1-215-885-00 | METAL OXIDE | 68 | 5% | 2W F |
| R2963 | 1-215-885-00 | METAL OXIDE | 68 | 5% | 2W F |
| R2965 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R2966 | 1-208-842-11 | RESISTOR | 330K | 0.50% | 1/10W |
| R2967 | 1-208-839-11 | RESISTOR | 240K | 0.50% | 1/10W (KV-32FV1/34FVL1) |
| R2967 | 1-208-838-11 | RESISTOR | 220K | 0.50% | 1/10W (KV-36FV1) |
| R2968 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R2969 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R2971 | 1-216-069-00 | RESISTOR | 6.8K | 5% | 1/10W |
| R2972 | 1-208-784-11 | RESISTOR | 1.2K | 0.50% | 1/10W |
| R2973 | 1-208-758-11 | RESISTOR | 100 | 0.50% | 1/10W |
| R2975 | 1-216-061-00 | RESISTOR | 3.3K | 5% | 1/10W |
| R2976 | 1-208-758-11 | RESISTOR | 100 | 0.50% | 1/10W |
| R2977 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R2978 | 1-208-782-11 | RESISTOR | 1K | 0.50% | 1/10W |
| R2979 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R2980 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |

## K

* **A-1385-187-A K COMPLETE BOARD**

4-382-854-11 SCREW (M3X10), P, SW (+)

### CAPACITOR

| | | | | | |
|---|---|---|---|---|---|
| C1461 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1462 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1464 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1465 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1467 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C1468 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1470 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1471 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C1472 | 1-137-194-81 | FILM | 0.47MF | 5% | 50V |
| C1473 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C1474 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C1475 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C1476 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C1477 | 1-126-971-11 | ELECT | 470MF | 20% | 50V |
| C1478 | 1-126-971-11 | ELECT | 470MF | 20% | 50V |

### CONNECTOR

| | | | | |
|---|---|---|---|---|
| CN1462* | 1-564-507-11 | PLUG, CONNECTOR | 4P | |
| CN1463* | 1-564-509-11 | PLUG, CONNECTOR | 6P | |
| CN5001* | 1-564-508-11 | PLUG, CONNECTOR | 5P | |
| CN5003* | 1-564-507-11 | PLUG, CONNECTOR | 4P | |

### DIODE

| | | | | |
|---|---|---|---|---|
| D1461 | 8-719-404-49 | DIODE MA111 | | |
| D1463 | 8-719-404-49 | DIODE MA111 | | |
| D1466 | 8-719-404-49 | DIODE MA111 | | |

### IC

| | | | | |
|---|---|---|---|---|
| IC1461 | 8-759-168-24 | IC TA8200AH | | |

### CONDUCTOR

| | | | | |
|---|---|---|---|---|
| JR1411 | 1-216-295-91 | SHORT | 0 | |
| JR1461 | 1-216-295-91 | SHORT | 0 | |
| JR1462 | 1-216-295-91 | SHORT | 0 | |
| JR5203 | 1-216-295-91 | SHORT | 0 | |
| JR5204 | 1-216-295-91 | SHORT | 0 | |

### IC LINK

| | | | | |
|---|---|---|---|---|
| PS1461⚠ | 1-532-984-11 | LINK, IC | 2A/90V | |

### TRANSISTOR

| | | | | |
|---|---|---|---|---|
| Q1461 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | | |
| Q1462 | 8-729-422-27 | TRANSISTOR 2SD601A-Q | | |
| Q1463 | 8-729-900-53 | TRANSISTOR DTC114EK | | |
| Q1464 | 8-729-900-53 | TRANSISTOR DTC114EK | | |

### RESISTOR

| | | | | | |
|---|---|---|---|---|---|
| R1461 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1462 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1464 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1465 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1466 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1467 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1469 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W F |
| R1470 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W F |
| R1471 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1472 | 1-216-077-00 | RESISTOR | 15K | 5% | 1/10W |
| R1473 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |

K P

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1474 | 1-216-295-91 | SHORT | 0 | | |
| R1475 | 1-216-295-91 | SHORT | 0 | | |
| R1480 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1481 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1482 | 1-216-295-91 | SHORT | 0 | | |
| R1483 | 1-216-295-91 | SHORT | 0 | | |

## P

*** A-1195-145-A P BOARD, COMPLETE**

### CAPACITOR

| | | | | | |
|---|---|---|---|---|---|
| C3301 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3302 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10 | 50V |
| C3319 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3320 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C3321 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C3322 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C3323 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3324 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3325 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3328 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3329 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3330 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3331 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3332 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C3334 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3338 | 1-216-295-91 | SHORT | 0 | | |
| C3340 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3346 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C3347 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C3348 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3349 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C3350 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 5V |
| C3352 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3353 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C3354 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3355 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3356 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3357 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3358 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3359 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3360 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3361 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C3362 | 1-104-664-11 | ELECT | 47MF | 20% | 16V |
| C3363 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C3364 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C3365 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C3366 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C3367 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C3368 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C3369 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C3370 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C3371 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C3372 | 1-164-005-11 | CERAMIC CHIP | 0.47MF | | 25V |

### CONNECTOR

| | | | |
|---|---|---|---|
| CN3301 | 1-764-812-11 | CONNECTOR, BOARD TO BOARD | 11P |
| CN3302* | 1-764-815-11 | CONNECTOR, BOARD TO BOARD | 18P |

### IC

| | | |
|---|---|---|
| IC3302 | 8-759-231-53 | IC TA7805S |
| C3303 | 8-759-533-89 | IC SDA9288XE-GEG-B121 |
| IC3304 | 8-752-086-80 | IC CXA2019AQ-T4 |
| IC3308 | 8-759-932-69 | IC BU4053BCF-T2 |

### CONDUCTOR

| | | | |
|---|---|---|---|
| JR3301 | 1-216-295-91 | SHORT | 0 |
| JR3302 | 1-216-295-91 | SHORT | 0 |
| JR3304 | 1-216-295-91 | SHORT | 0 |
| JR3305 | 1-216-295-91 | SHORT | 0 |
| JR3306 | 1-216-295-91 | SHORT | 0 |

### COIL

| | | | |
|---|---|---|---|
| L3301 | 1-410-470-11 | INDUCTOR | 10UH |
| L3302 | 1-410-473-11 | INDUCTOR | 18UH |
| L3303 | 1-408-612-31 | INDUCTOR | 56UH |
| L3305 | 1-408-619-31 | INDUCTOR | 220UH |
| L3306 | 1-410-482-31 | INDUCTOR | 100UH |

### TRANSISTOR

| | | |
|---|---|---|
| Q3301 | 8-729-422-27 | TRANSISTOR 2SD601A-Q |
| Q3302 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q3305 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q3306 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q3307 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q3310 | 8-729-422-27 | TRANSISTOR 2SD601A-Q |
| Q3312 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| Q3314 | 8-729-216-22 | TRANSISTOR 2SA1162-G |

### RESISTOR

| | | | | | |
|---|---|---|---|---|---|
| R3301 | 1-216-295-91 | SHORT | 0 | | |
| R3303 | 1-216-295-91 | SHORT | 0 | | |
| R3304 | 1-216-295-91 | SHORT | 0 | | |
| R3305 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R3306 | 1-216-295-91 | SHORT | 0 | | |
| R3312 | 1-216-037-00 | RESISTOR | 330 | 5% | 1/10W |
| R3313 | 1-216-295-91 | SHORT | 0 | | |
| R3314 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3322 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R3323 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R3324 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R3329 | 1-216-069-00 | RESISTOR | 6.8K | 5% | 1/10W |
| R3330 | 1-216-295-91 | SHORT | 0 | | |
| R3332 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R3337 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R3338 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R3339 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3340 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3341 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R3342 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R3343 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3346 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3351 | 1-216-295-91 | SHORT | 0 | | |
| R3352 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R3358 | 1-216-047-91 | RESISTOR | 820 | 5% | 1/10W |
| R3359 | 1-216-047-91 | RESISTOR | 820 | 5% | 1/10W |
| R3360 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R3361 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R3362 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3363 | 1-216-045-00 | RESISTOR | 680 | 5% | 1/10W |
| R3364 | 1-216-045-00 | RESISTOR | 680 | 5% | 1/10W |
| R3370 | 1-216-295-91 | SHORT | 0 | | |
| R3375 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R3376 | 1-216-071-00 | RESISTOR | 8.2K | 5% | 1/10W |
| R3377 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R3378 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R3379 | 1-216-077-00 | RESISTOR | 15K | 5% | 1/10W |
| R3380 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3381 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3382 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R3383 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R3384 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R3385 | 1-216-109-00 | RESISTOR | 330K | 5% | 1/10W |
| R3386 | 1-216-295-91 | SHORT | 0 | | |
| R3387 | 1-216-295-91 | SHORT | 0 | | |
| R3395 | 1-216-061-00 | RESISTOR | 3.3K | 5% | 1/10W |

**CRYSTAL**

| | | | |
|---|---|---|---|
| X3302 | 1-760-095-21 | VIBRATOR, CRYSTAL | |
| X3303 | 1-577-611-11 | OSCILALTOR, CERAMIC CHIP | |
| X3304 | 1-567-505-11 | OSCILLATOR, CRYSTAL | |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|

## UX

* **A-1394-912-A UX BOARD, COMPLETE**

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| C151 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C152 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C153 | 1-164-222-11 | CERAMIC CHIP | 0.22MF | | 25V |
| C154 | 1-164-222-11 | CERAMIC CHIP | 0.22MF | | 25V |
| C156 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C158 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C159 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C160 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C161 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C162 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C164 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C166 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C167 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C168 | 1-104-666-11 | ELECT | 220MF | 20% | 25V |
| C173 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C174 | 1-164-005-11 | CERAMIC CHIP | 0.47MF | | 25V |
| C201 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C202 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C203 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C204 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C205 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C231 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C232 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C233 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C234 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C235 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C236 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C237 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C238 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C241 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C242 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C243 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C244 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C245 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C247 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C248 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C249 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C272 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C273 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C277 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C278 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C279 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C281 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C283 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C284 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C1051 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1053 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C1151 | 1-164-346-11 | CERAMIC CHIP | 1MF | | 16V |
| C1152 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1153 | 1-164-346-11 | CERAMIC CHIP | 1MF | | 16V |
| C1155 | 1-126-941-11 | ELECT | 470MF | 20% | 25V |
| C1156 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1158 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1159 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1402 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1404 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1405 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1406 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1407 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C1408 | 1-164-182-11 | CERAMIC CHIP | 0.0033MF | 10% | 50V |
| C1409 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1410 | 1-164-182-11 | CERAMIC CHIP | 0.0033MF | 10% | 50V |
| C1411 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1414 | 1-164-222-11 | CERAMIC CHIP | 0.22MF | | 25V |
| C1415 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C1416 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C1420 | 1-164-005-11 | CERAMIC CHIP | 0.47MF | | 25V |
| C1421 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1422 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C2201 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C2202 | 1-126-965-11 | ELECT | 22MF | 20% | 50V |
| C2203 | 1-163-021-91 | CERAMIC CHIP | 0.01MF | 10% | 50V |

**CONNECTOR**

| | | | |
|---|---|---|---|
| CN261 | 1-573-300-21 | CONNECTOR BOARD TO BOARD | 18P |
| CN262 | 1-573-301-21 | CONNECTOR, BOARD TO BOARD | 20P |
| CN264 | * 1-691-632-21 | CONNECTOR, BOARD TO BOARD | 15P |
| CN1401 | *1-564-508-11 | PLUG, CONNECTOR | 5P |

**DIODE**

| | | |
|---|---|---|
| D151 | 8-719-404-49 | DIODE MA111 |
| D152 | 8-719-404-49 | DIODE MA111 |
| D154 | 8-719-404-49 | DIODE MA111 |
| D201 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D202 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D203 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D204 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D205 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D231 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D232 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D233 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D234 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D235 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D236 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D237 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D238 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D239 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D245 | 8-719-157-94 | DIODE RD3.3SB |
| D246 | 8-719-157-94 | DIODE RD3.3SB |
| D247 | 8-719-157-94 | DIODE RD3.3SB |
| D248 | 8-719-157-94 | DIODE RD3.3SB |
| D249 | 8-719-157-94 | DIODE RD3.3SB |
| D250 | 8-719-157-94 | DIODE RD3.3SB |
| D261 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D902 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D910 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D911 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D912 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D1051 | 8-719-404-49 | DIODE MA111 |
| D1052 | 8-719-404-49 | DIODE MA111 |
| D2201 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D2202 | 8-719-032-47 | DIODE MTZJ-T-9110 |
| D2203 | 8-719-032-47 | DIODE MTZJ-T-9110 |

**IC**

| | | |
|---|---|---|
| IC151 | 8-759-700-44 | IC NJM2902M |
| IC152 | 8-759-700-44 | IC NJM2902M |
| IC153 | 8-759-700-44 | IC NJM2902M |
| IC154 | 8-759-009-06 | IC MC14052BF |
| IC155 | 8-759-700-44 | IC NJM2902M |
| IC156 | 8-759-700-44 | IC NJM2902M |
| IC157 | 8-759-009-06 | IC MC14052BF |
| IC261 | 8-752-066-69 | IC CXA1845Q |
| IC1051 | 8-752-058-68 | IC CXA1315M |
| IC1401 | 8-759-369-39 | IC BH3856FS-E2 |
| IC1402 | 8-759-100-96 | IC UPC4558G2 |

**JACK**

| | | | |
|---|---|---|---|
| J231 | 1-750-515-11 | TERMINAL BLOCK, S | 3P |
| J232 | 1-750-517-11 | JACK BLOCK PIN | 3P |
| J233 | 1-750-516-11 | JACK BLOCK PIN | 2P |
| J234 | 1-750-517-11 | JACK BLOCK PIN | 3P |
| J235 | 1-750-517-11 | JACK BLOCK PIN | 3P |
| J236 | 1-774-358-11 | JACK BLOCK PIN | 5P |
| J902 | 1-764-143-11 | JACK | 3P |
| J903 | 1-764-143-11 | JACK | 3P |
| J904 | 1-764-143-11 | JACK | 3P |
| J905 | 1-764-143-11 | JACK | 3P |

| REF.NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| | **COIL** | | | |
| L261 | 1-410-482-31 | INDUCTOR | 100UH | |
| | **TRANSISTOR** | | | |
| Q202 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q203 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q205 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q206 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q208 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q209 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q210 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q211 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q212 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q231 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q233 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q234 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q235 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q236 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q237 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q238 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q239 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q240 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q241 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q242 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q243 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q244 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q245 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q246 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q262 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q263 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q264 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q265 | 8-729-422-27 | TRANSISTOR | 2SD601A-Q | |
| Q266 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q267 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q268 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| Q1051 | 8-729-216-22 | TRANSISTOR | 2SA1162-G | |
| | **RESISTOR** | | | |
| R151 | 1-216-085-00 | RESISTOR | 33K 5% | 1/10W |
| R152 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R153 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R154 | 1-216-085-00 | RESISTOR | 33K 5% | 1/10W |
| R155 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R156 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R157 | 1-216-079-00 | RESISTOR | 18K 5% | 1/10W |
| R158 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| R159 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R160 | 1-216-079-00 | RESISTOR | 18K 5% | 1/10W |
| R161 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R162 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R163 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R164 | 1-216-065-91 | RESISTOR | 4.7K 5% | 1/10W |
| R165 | 1-216-073-00 | RESISTOR | 10K 5% | 1/10W |
| R167 | 1-216-091-00 | RESISTOR | 56K 5% | 1/10W |
| R168 | 1-216-075-00 | RESISTOR | 12K 5% | 1/10W |
| R169 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R170 | 1-216-049-91 | RESISTOR | 1K 5% | 1/10W |
| R171 | 1-216-049-91 | RESISTOR | 1K 5% | 1/10W |
| R172 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R173 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R174 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R175 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R176 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R178 | 1-216-091-00 | RESISTOR | 56K 5% | 1/10W |
| R179 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R180 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R181 | 1-216-049-91 | RESISTOR | 1K 5% | 1/10W |
| R183 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R184 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R185 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R186 | 1-216-089-91 | RESISTOR | 47K 5% | 1/10W |
| R187 | 1-216-099-00 | RESISTOR | 120K 5% | 1/10W |
| R188 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R189 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R190 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R191 | 1-216-089-91 | RESISTOR | 47K 5% | 1/10W |
| R192 | 1-216-063-91 | RESISTOR | 3.9K 5% | 1/10W |
| R193 | 1-216-099-00 | RESISTOR | 120K 5% | 1/10W |
| R194 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R195 | 1-216-075-00 | RESISTOR | 12K 5% | 1/10W |
| R196 | 1-216-089-91 | RESISTOR | 47K 5% | 1/10W |
| R197 | 1-216-097-91 | RESISTOR | 100K 5% | 1/10W |
| R198 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R199 | 1-216-089-91 | RESISTOR | 47K 5% | 1/10W |
| R200 | 1-216-081-00 | RESISTOR | 22K 5% | 1/10W |
| R201 | 1-216-022-00 | RESISTOR | 75 5% | 1/10W |
| R202 | 1-216-022-00 | RESISTOR | 75 5% | 1/10W |
| R203 | 1-216-022-00 | RESISTOR | 75 5% | 1/10W |
| R204 | 1-216-113-00 | RESISTOR | 470K 5% | 1/10W |
| R205 | 1-216-113-00 | RESISTOR | 470K 5% | 1/10W |
| R206 | 1-216-295-91 | SHORT | 0 | |
| R207 | 1-216-295-91 | SHORT | 0 | |
| R208 | 1-216-295-91 | SHORT | 0 | |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R211 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R212 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R213 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R214 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R218 | 1-208-774-11 | RESISTOR | 470 | 0.50% | 1/10W |
| R219 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R220 | 1-208-776-11 | RESISTOR | 560 | 0.50% | 1/10W |
| R221 | 1-208-774-11 | RESISTOR | 470 | 0.50% | 1/10W |
| R222 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R223 | 1-208-776-11 | RESISTOR | 560 | 0.50% | 1/10W |
| R225 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R226 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R228 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R229 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R230 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R231 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R232 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R233 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R234 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R235 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R236 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R237 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R238 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R239 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R240 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R241 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R242 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R243 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R244 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R245 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R246 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R247 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R248 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R249 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R250 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R251 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R252 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R254 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R256 | 1-216-295-91 | SHORT | 0 | | |
| R257 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R258 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R259 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R260 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R261 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R262 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R263 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R264 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R265 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R266 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R267 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R268 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R269 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R270 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R271 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R272 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R273 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R274 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R275 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R276 | 1-216-295-91 | SHORT | 0 | | |
| R278 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R279 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R280 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R281 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R282 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R283 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R284 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R285 | 1-216-033-00 | RESISTOR | 220 | 5% | 1/10W |
| R286 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R287 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R288 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R289 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R290 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R291 | 1-216-067-00 | RESISTOR | 5.6K | 5% | 1/10W |
| R292 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R293 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R294 | 1-216-077-00 | RESISTOR | 15K | 5% | 1/10W |
| R295 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R296 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R297 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R298 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R300 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R902 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W F |
| R919 | 1-216-295-91 | SHORT | 0 | | |
| R921 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W F |
| R923 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W F |
| R925 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W F |
| R926 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1051 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1052 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1053 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1054 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1055 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1056 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1057 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1058 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1059 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1060 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1062 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1063 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1064 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1065 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1151 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R1152 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1153 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1154 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1156 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1157 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1157 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1158 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1159 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1160 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1161 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1162 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1163 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1164 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1165 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1166 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1167 | 1-216-091-00 | RESISTOR | 56K | 5% | 1/10W |
| R1168 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1169 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1170 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1171 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1172 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1173 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1174 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1175 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1176 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1177 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1178 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1179 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1180 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1181 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1182 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1183 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1184 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1185 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1186 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1187 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1188 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1189 | 1-216-057-00 | RESISTOR | 2.2K | 5% | 1/10W |
| R1190 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1191 | 1-216-017-91 | RESISTOR | 47 | 5% | 1/10W |
| R1192 | 1-216-017-91 | RESISTOR | 47 | 5% | 1/10W |
| R1193 | 1-216-099-00 | RESISTOR | 120K | 5% | 1/10W |
| R1194 | 1-208-291-11 | RESISTOR | 4.7M | 5% | 1/10W |
| R1195 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1196 | 1-208-291-11 | RESISTOR | 4.7M | 5% | 1/10W |
| R1197 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1198 | 1-216-063-91 | RESISTOR | 3.9K | 5% | 1/10W |
| R1199 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1200 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1201 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1202 | 1-216-053-00 | RESISTOR | 1.5K | 5% | 1/10W |
| R1203 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1204 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1205 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1207 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1208 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1209 | 1-216-295-91 | SHORT | 0 | | |
| R1211 | 1-216-089-91 | RESISTOR | 47K | 5% | 1/10W |
| R1212 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1213 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1214 | 1-208-774-11 | RESISTOR | 470 | 0.50% | 1/10W |
| R1215 | 1-208-776-11 | RESISTOR | 560 | 0.50% | 1/10W |
| R1216 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1217 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1242 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1243 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1244 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1245 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1246 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R1247 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1248 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1249 | 1-216-113-00 | RESISTOR | 470K | 5% | 1/10W |
| R1250 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1251 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1252 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1254 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1255 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1256 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1257 | 1-216-065-91 | RESISTOR | 4.7K | 5% | 1/10W |
| R1258 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1259 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1260 | 1-216-295-91 | SHORT | 0 | | |
| R1261 | 1-208-774-11 | RESISTOR | 470 | 0.50% | 1/10W |
| R1262 | 1-208-776-11 | RESISTOR | 560 | 0.50% | 1/10W |
| R1263 | 1-216-295-91 | SHORT | 0 | | |
| R1264 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1265 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1266 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R1267 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1268 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1269 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R1270 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1271 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1272 | 1-208-774-11 | RESISTOR | 470 | 0.50% | 1/10W |
| R1273 | 1-208-777-11 | RESISTOR | 620 | 0.50% | 1/10W |
| R1274 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1275 | 1-216-097-91 | RESISTOR | 100K | 5% | 1/10W |
| R1276 | 1-216-041-00 | RESISTOR | 470 | 5% | 1/10W |
| R1277 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1278 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1279 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1280 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1281 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1282 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1283 | 1-216-295-91 | SHORT | 0 | | |
| R1284 | 1-216-295-91 | SHORT | 0 | | |
| R1286 | 1-216-295-91 | SHORT | 0 | | |
| R1287 | 1-216-295-91 | SHORT | 0 | | |
| R1288 | 1-216-295-91 | SHORT | 0 | | |
| R1289 | 1-216-295-91 | SHORT | 0 | | |
| R1290 | 1-216-295-91 | SHORT | 0 | | |
| R1291 | 1-216-295-91 | SHORT | 0 | | |
| R1292 | 1-216-295-91 | SHORT | 0 | | |
| R1293 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1294 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1295 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1296 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1297 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1298 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1299 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1300 | 1-216-049-91 | RESISTOR | 1K | 5% | 1/10W |
| R1401 | 1-216-295-91 | SHORT | 0 | | |
| R1406 | 1-216-295-91 | SHORT | 0 | | |
| R1407 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1408 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1409 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1411 | 1-216-073-00 | RESISTOR | 10K | 5% | 1/10W |
| R1412 | 1-216-093-00 | RESISTOR | 68K | 5% | 1/10W |
| R1414 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1415 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1418 | 1-216-093-00 | RESISTOR | 68K | 5% | 1/10W |
| R1419 | 1-216-081-00 | RESISTOR | 22K | 5% | 1/10W |
| R1421 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R1424 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R1425 | 1-216-025-91 | RESISTOR | 100 | 5% | 1/10W |
| R2201 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R2202 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |
| R2203 | 1-216-022-00 | RESISTOR | 75 | 5% | 1/10W |

## ACCESSORIES AND PACKAGING

### KV-32FV1/36FV1

| | | |
|---|---|---|
| | 3-862-737-21 | MANUAL, INSTRUCTION (US MODELS) |
| | 3-862-737-31 | MANUAL, INSTRUCTION (CND MODELS) |
| * | 4-053-658-01 | BAG, PROTECTION |
| * | 4-065-856-01 | CUSHION (UPPER) (ASSY) |
| * | 4-065-857-01 | CUSHION (LOWER) (ASSY) |
| * | 4-067-015-01 | INDIVIDUAL CARTON |

### (KV-34FVL1)

| | | |
|---|---|---|
| | 3-862-738-41 | MANUAL, INSTRUCTION |
| * | 4-066-646-01 | BAG, PROTECTION |
| * | 4-065-046-01 | CUSHION (UPPER) (ASSY) |
| * | 4-065-047-01 | CUSHION (LOWER) (ASSY) |
| * | 4-065-045-01 | INDIVIDUAL CARTON |
| | 4-067-998-01 | TRAY |

### REMOTE COMMANDER

| | | |
|---|---|---|
| | 1-475-802-11 | REMOTE COMMANDER (RM-Y167) |
| | 4-978-977-01 | BATTERY COVER FOR REMOTE |

NOTES:

NOTES:

**Sony Corporation**
**Sony Technology Center**
**Product Quality Division**
**Service Promotion Department**

**9-965-847-01**

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